

Economic Intersections of Rhode Island

a private sector-generated action agenda



Table of Contents

Introduction.....	3
An Action Agenda	6
1. Increasing Impact of Competitive Advantages	8
1.1 Increase Impact Potential of Tourism Industry	10
1.2 Promote Access to Water and Marine- and Water-Based Industries to Support Existing Businesses	14
1.3 Create the Rhode Island Center for Design and Manufacturing	19
1.4 Support High Growth Company Opportunities through Tech-Transfer	21
1.5 Accelerate the Opportunities Provided by Bioscience, Neuroscience, and Medtech Sector	27
2. Promoting Emerging Opportunities	30
2.1 Claim Rhode Island as the Center for the Maker Movement	31
2.2 Establish a Regional Center of Excellence for Marine Technologies and Cybersecurity	35
2.3 Support a Stronger and More Resilient Rhode Island	41
2.4 Strengthen the Food Value Web to Increase Food-Related Jobs.....	46
2.5 Coordinate and Enhance Entrepreneurship and Small Business Support Services for the Food-Health Nexus.....	52
3. Facilitating Intersections and Connectivity.....	56
3.1 Develop Online Communications Infrastructure.....	57
3.2 Enable Cross-Sector Collaboration to Propel Industry Strength and Success.....	61
4. Building Capacity and the Business Ecosystem	66
4.1 Increase Logistics and Export Assistance.....	67
4.2 Address Rhode Island's Capital Gap	71
4.3 Create New Mechanisms to Provide Capital to High-Opportunity Affinity Groups.....	76
4.4 Enhance Technical Assistance and Industry Organization Capacity to Support Small Businesses	80
4.5 Support Office of Regulatory Reform Efforts.....	85
5. Supporting the Talent Pipeline	87
5.1 Engage and Inform K-12 Youth and Families	89
5.2 Assist Employers in Attracting and Retaining Qualified Workers	92
5.3 Develop the Information Technology Talent Pipeline.....	96
5.4 Develop the Manufacturing Talent Pipeline	99
Conclusion	103
Appendix – All Recommendations.....	104
Acknowledgements.....	112

Dear Friends,

Over the past three months, more than 200 business leaders and subject matter experts have participated in 20 sessions convened by the Rhode Island Commerce Corporation and Rhode Island Foundation to identify unique market opportunities at the intersection of industries. Our goal was to inform the *RhodeMap RI* process, which will produce an economic development plan for the state by October 2014, and generate specific actions that can be undertaken in the meantime.

Together, participants generated over 100 action recommendations to create jobs and grow industries. The Fourth Economy Consulting team pushed participants to be specific about the necessary resources, leadership requirements, and impact potential for each suggestion.

In the following pages, Fourth Economy reports out on what was discovered during this process. In particular, this report summarizes the 21 most robust recommendations. (The team also provides a list of every suggestion they were able to capture from the discussion in the Appendix.) As you'll see, the recommendations vary in scope and specificity. Some are already underway, while others need further exploration. Some require policy changes, while others can be led by the private sector.

We heard a lot of pride in Rhode Island's strengths and emerging opportunities. Participants were clear: our economy is intricately tied to multiple industries. They requested increased coordination and connectivity; collaboration doesn't always come naturally, but Rhode Island doesn't have time for unnecessary duplications or

wasted opportunities. We heard loud and clear that Rhode Island needs some of these initiatives to achieve meaningful scale, and that Rhode Island must fully embrace its diversity for future economic growth.

We are excited about many of the initiatives that are underway and eager to see some of the new ideas tested. We were gratified to see new relationships and activities already emerge. And most importantly, we are encouraged by the commitment that members of the private sector have demonstrated throughout this process. Thank you to everyone who showed leadership by showing up, engaging with colleagues, and putting your ideas out there.

This process was – and continues to be – a call to action. While our organizations intend to be involved with several of these action steps, we are not the gatekeeper of the efforts. There is no one action step, person, or organization that can fix Rhode Island's economy; progress will require broad participation and leadership from every sector. We welcome your feedback and your leadership, and we ask you to keep us informed of your efforts.

Best regards,



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President & CEO
Rhode Island Foundation



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Introduction

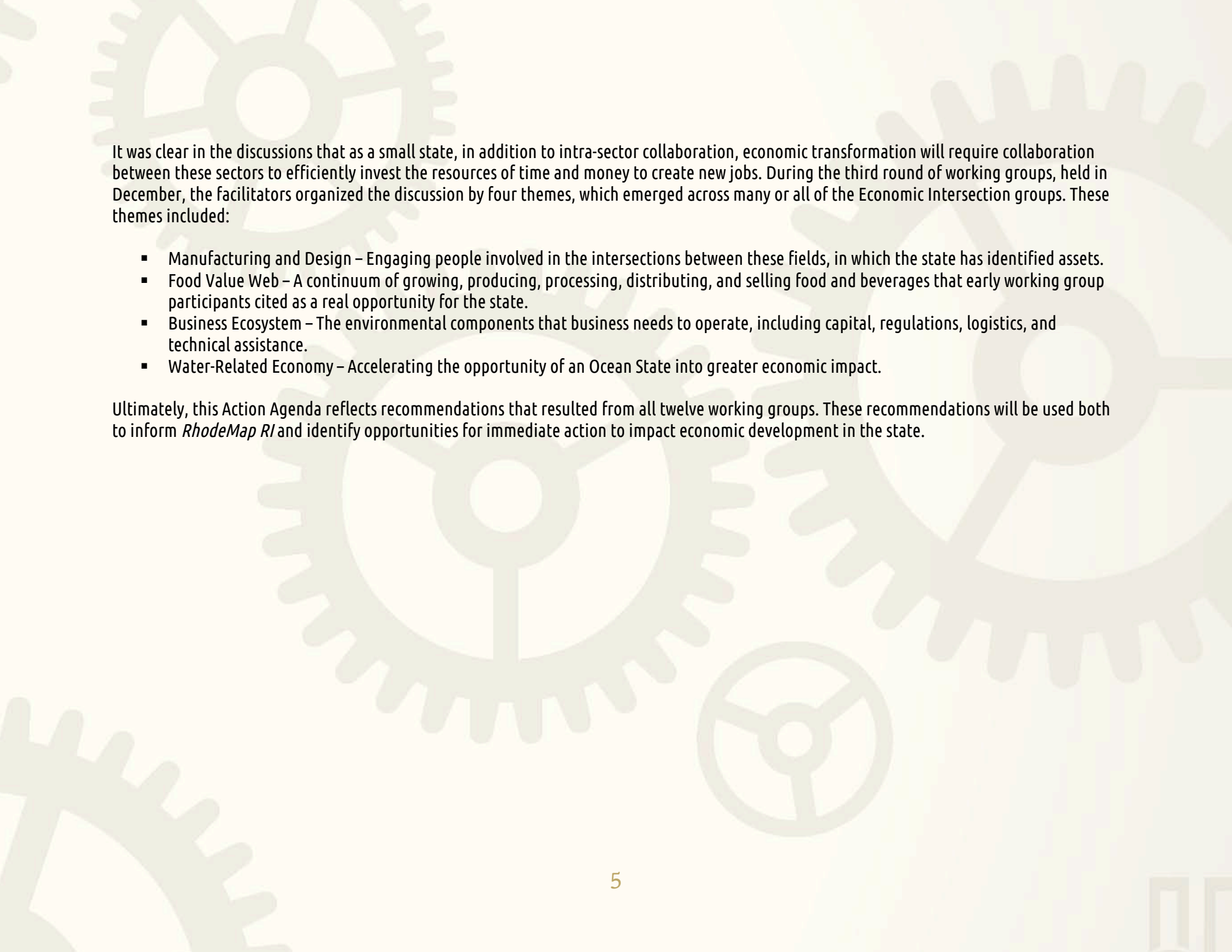
Starting in September 2013, the Rhode Island Foundation and the Rhode Island Commerce Corporation (Commerce RI) sought to engage a wide range of private sector representatives in a process of identifying opportunities and barriers to economic growth in the state. The recommendations for economic development actions in Rhode Island that are contained in this document are the result of the generous time contributions of more than 200 Rhode Island business leaders and representatives of business-serving organizations who participated in a series of three working group sessions. They offered over 100 ideas and recommendations, and in the process began to identify new opportunities for collaboration and focus.

The eight working groups convened by the Rhode Island Foundation and Commerce RI were organized to provide private sector input into the *RhodeMap RI* process and to identify more immediate opportunities for economic development. Under the leadership of Statewide Planning as part of a Sustainable Communities grant, *RhodeMap RI* is a coordinated and forward-looking effort by the state to make Rhode Island a better place to live and work by mobilizing state and community assets in a whole new way. It will guide investments for years to come. Through *RhodeMap RI*, the state seeks to strengthen the economy, meet current and future housing needs, and plan for future growth through an integrated manner that will include strategies for transportation, land use, and environmental protection. Of course, any plan is only as good as the level of input and engagement of the people and organizations that will be guided by the plan.

The working groups were organized by Economic Intersections, a new way of considering the interrelatedness that exists in an economy and an approach that seeks to identify new market opportunities through business collaboration. A guiding question for these working groups was, “What can we do together to positively impact economic development, that we can’t do alone?” Within each of the working groups, stakeholders shared similar goals, clients, resources, etc., but many had not met or had the chance to work together to identify common barriers and opportunities. These working group sessions were designed to acknowledge and explore economic opportunities that could not be identified through traditional, quantitative analysis reliant on outdated North American Industrial Classification (NAIC) codes; rather these working groups exemplified a new way of thinking about economic opportunities that engaged multiple sectors to work collaboratively to support new business creation.

The first two rounds of Economic Intersection working groups included the following sectors of:

- Arts/Culture/Creative,
- Biotechnology/Medical/Public Health,
- Finance/Insurance/Real Estate/Corporate,
- Logistics/Connectivity,
- Manufacturing/Design/Makers,
- Natural Resources,
- Technology/Digital/Software, and
- Tourism/Hospitality/Visitor.



It was clear in the discussions that as a small state, in addition to intra-sector collaboration, economic transformation will require collaboration between these sectors to efficiently invest the resources of time and money to create new jobs. During the third round of working groups, held in December, the facilitators organized the discussion by four themes, which emerged across many or all of the Economic Intersection groups. These themes included:

- Manufacturing and Design – Engaging people involved in the intersections between these fields, in which the state has identified assets.
- Food Value Web – A continuum of growing, producing, processing, distributing, and selling food and beverages that early working group participants cited as a real opportunity for the state.
- Business Ecosystem – The environmental components that business needs to operate, including capital, regulations, logistics, and technical assistance.
- Water-Related Economy – Accelerating the opportunity of an Ocean State into greater economic impact.

Ultimately, this Action Agenda reflects recommendations that resulted from all twelve working groups. These recommendations will be used both to inform *RhodeMap RI* and identify opportunities for immediate action to impact economic development in the state.

An Action Agenda

"It was the best of times, it was the worst of times..." While the context was much different, Dickens's opening to *A Tale of Two Cities* aptly sums up the attitude of many of the Rhode Islanders who were engaged in the Economic Intersections working group sessions. There are numerous bright economic stars beginning to shine, as well as opportunities to address the diversity of Rhode Island's changing demographics; however, there are also lingering issues and deep inequalities that weigh heavily on the state's economic recovery.

Years of structural economic transformation will require more than short-term fixes or the pursuit of a 'great single initiative.' This is not meant to diminish the ideas that many in the community have had, rather it is to reinforce that for Rhode Island to change its economic plight, it must embrace a broad-based action agenda that creates short-term momentum, while also building on a long-term economic infrastructure to generate sustainable change.

It also must be an action agenda that develops a breadth and depth of capacity, allowing for scale, measurable impacts, and sustained growth. During this process, numerous existing or previous efforts were highlighted, but it was repeatedly discovered that they lacked the financial and human resources to create the level of the impact desired. As a result, a continuous cycle of initiative development, limited resource allocation, limited performance, and loss of interest culminate in a lack of desire from leaders to do 'something new.' It will be critical to properly support the initiatives that move forward from this effort and to adopt an approach of rapid prototyping and continuous improvement.

The Economic Intersections process was designed as a critical input to the creation of the state's economic development plan. The process engaged private business professionals in a robust discussion about the job creation opportunities and barriers they are experiencing. It identified over 100 ideas, and an iterative three-month process developed a handful of those ideas into the specific actionable recommendations included in this report.

Five themes were identified in the actionable recommendations that are being advanced:

- Increasing Impact of Competitive Advantages: Rhode Island's assets must be leveraged to create additional economic impacts.
- Promoting Emerging Opportunities: Several emerging economic opportunities in the state could provide increased job creation potential as they evolve.
- Supporting Intersections and Connectivity: Better coordination and information sharing would enhance the impact of the many good things occurring in Rhode Island.
- Building Capacity and the Business Ecosystem: Rhode Island has opportunities and needs related to its business ecosystem, which must be addressed to improve the job creation potential of all companies and institutions.
- Supporting the Talent Pipeline: Rhode Island must enhance and grow the capacity of its workforce training capabilities and the connection between the workforce system and employers.

These themes are purposely broad, but within each, stakeholders have identified specific actions that can be undertaken to create short-term impact with an eye towards ongoing and long-term benefits. The actions that comprise this Action Agenda are meant to directly create jobs and/or support job creators in the state. The chart below illustrates which Economic Intersections groups articulated or would be impacted by the specific recommendations.

Advancing many of the actions will require the involvement of multiple organizations, and the energy and passion for Rhode Island exhibited during the sessions suggests that the working group process was a beginning and not an end to this type of collaboration.

What follows is not an economic development plan; rather the recommended actions are an input into a larger economic development planning process. It is a goal of this effort that while the state continues to develop its statewide economic development plan through the *RhodeMap RI* process, some of these recommendations will be catalysts for immediate action.

Economic Intersections by Recommendation

This table demonstrates which Economic Intersections contributed to, have a role in, or are impacted by the recommendations presented.

Recommendations	Economic Intersections							
	Arts / Culture / Creative	Biotechnology / Medical / Public Health	Tourism / Hospitality / Visitor	Finance / Insurance / Real Estate / Corporate	Technology / Digital / Software	Manufacturing / Design / Makers	Logistics / Connectivity	Natural Resources
Increasing Impact of Competitive Advantages								
Increase Impact Potential of Tourism Industry	⊗	⊗	⊗		⊗		⊗	⊗
Promote Access to Water and Marine-Based Businesses	⊗		⊗		⊗		⊗	⊗
Create the Rhode Island Center for Design and Manufacturing	⊗	⊗			⊗	⊗		
Support High Growth Company Opportunities Through Tech-Transfer		⊗		⊗	⊗	⊗	⊗	
Accelerate the Opportunities Provided by the Bioscience, Neuroscience, and Medtech Sector		⊗	⊗		⊗	⊗		
Promoting Emerging Opportunities								
Claim Rhode Island as the Center for the Maker Movement	⊗	⊗		⊗	⊗	⊗	⊗	⊗
Establish a Regional Center of Excellence for Marine and Cybersecurity Technologies		⊗		⊗	⊗	⊗	⊗	⊗
Support a Stronger and More Resilient Rhode Island		⊗	⊗		⊗		⊗	⊗
Strengthen the Food Value Web to Increase Food-Related Jobs	⊗	⊗	⊗			⊗	⊗	⊗
Coordinate and Enhance Entrepreneurship and Small Business Support Services for the Food-Health Nexus		⊗		⊗	⊗			⊗
Facilitating Intersections and Connectivity								
Develop Online Communications Infrastructure	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Enable Cross-Sector Collaboration to Propel Industry Strength and Success	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Building Capacity and the Business Ecosystem								
Increase Logistics and Export Assistance					⊗	⊗	⊗	
Address Rhode Island's Capital Gap		⊗		⊗	⊗	⊗		
Create New Mechanisms and Support Systems for Providing Capital to High-Opportunity Affinity Groups	⊗			⊗				⊗
Enhance Technical Assistance and Industry Support Organization Capacity to Facilitate Job Growth for Small Businesses	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Support the Office of Regulatory Reform Efforts	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Supporting the Talent Pipeline								
Engage and Inform K-12 Youth and Families	⊗	⊗			⊗	⊗		
Assist Employers in Attracting and Retaining Qualified Workers	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Develop the Information Technology Pipeline	⊗	⊗			⊗			
Develop the Manufacturing Talent Pipeline	⊗				⊗	⊗		

1. Increasing Impact of Competitive Advantages

Rhode Island boasts many assets that can be leveraged to support economic growth. First, Rhode Island is home to a dozen colleges and universities. Many of these are second-tier institutions creating top-notch talent right in the state's backyard. With universities being the drivers for modern economic investment, Rhode Island could utilize this asset to its fullest potential. Capitalizing on and promoting this asset will go a long way to increasing economic development activity in the state. Second, Rhode Island's location relative to the ocean and to New England provides incredible opportunity for economic growth. The ocean supports industry clusters and tourism assets not available to all states. The existing establishment of marine and defense clusters supports this asset. The New England area sees great innovation and success with startups, business development and economic gardening initiatives. Utilizing this to the state's advantage will be a big factor in Rhode Island's success. Finally, with a small business-focused mentality, the state can create a culture of innovation and growth. Innovation incubators, cluster networks, and programmatic support will take this opportunity from concept to a state of mind that will allow the state to capitalize on this asset. The following recommendations are intended to build on these assets:

1. Increase Impact Potential of Tourism Industry
2. Promote Access to Water and Marine-Based Businesses
3. Create the Rhode Island Center for Design and Manufacturing
4. Support High Growth Company Opportunities through Tech-Transfer
5. Accelerate the Opportunities Provided by the Bioscience, Neuroscience, and Medtech Sector

1.1 Increase Impact Potential of Tourism Industry

Background

Intent

A dedicated funding source for tourism promotion is a high priority for the tourism industry. In 1995, the general assembly eliminated the 27 percent portion of the lodging tax that was dedicated to statewide tourism promotion and directed it to the general fund. Funding for tourism became part of the newly formed Rhode Island Economic Development Corporation budget subject to the executive director's discretion.

Slowly, the \$3 million dollar promotional budget eroded to less than \$400,000 dollars. In addition, elimination of a dedicated funding source diminished the effectiveness of the division's statewide tourism promotional efforts. A dedicated funding source allowed for advanced planning and placement of a competitive campaign. Today, there is no opportunity for advanced planning and resources cannot be effectively leveraged, nor promotional efforts implemented, until the budget is passed in July. Missed opportunity is costing the state market share and a consistent and dedicated funding source is necessary to reverse the trend.

Tourism development, done correctly, is inextricably linked to community and economic development, housing, and growth centers. Tourism development, prepared, planned, and implemented becomes what theorists call place-based economic development and whole community planning. Tourism has the ability to help create a resilient, sustainable Rhode Island.

Market Opportunity

Rhode Island's tourism industry is a major component of economic development. An IHS Global Insights study estimated that visitors injected \$3.4 billion into the Rhode Island economy in 2009 alone (the last year of complete available data). Unfortunately, national economic trends and increasingly aggressive regional competitors have successfully pulled market share from Rhode Island. Visitor spending declined by 19 percent between 2007 and 2009.

Considering that the tourism industry supported 42,000 direct and indirect Rhode Island jobs in 2009 (9 percent of the state's job base in 2009) and generated \$536 million in state and local tax revenue, Rhode Island risks losing an indispensable economic and job growth opportunity by not effectively competing for visitor dollars. According to the U.S. Bureau of Economic Analysis, the tourism industry is rebounding and many states are looking to improve performance as part of their strategic economic growth plans.

While Rhode Island possesses many strong natural and cultural tourism assets, other states are investing considerably more marketing resources to convince prospective visitors to choose their destinations. According to working group participants, the national average state allocation for tourism promotion is approximately \$10 million directed to state tourism budgets. Rhode Island's state tourism marketing budget is currently

hovering at about \$500,000 annually, including staff. Influenced by expanded marketing efforts by other states, Rhode Island experienced a 14 percent decline in market share in the latest available forecast.

As most businesses across the country recognize, marketing stimulates demand and the additional marketing resources utilized by competitors allows them to draw market share away from Rhode Island. If the state had maintained its 2007 market share levels, it would have generated an additional \$375 million in spending, 6,800 additional jobs and \$87 million in new tax revenue.

Existing Activities

- Rhode Island Regional Tourism Councils all conduct their own branding efforts
- Discover Beautiful Rhode Island is Governor Chafee's initiative that beautifies Rhode Island's gateways, integrates Discover Beautiful Rhode messaging throughout the state's tourism campaign collaboratively with regional tourism organizations, and coordinates the promotion of programs produced by state agencies under one single brand.

Primary Steps to Take

1. Create a Steady, Predictable Funding Mechanism for Tourism Promotion

Three possible funding mechanisms have been suggested for consideration by the legislature:

- Applying a state lodging tax to vacation home rentals,
- Implementing a \$1 per night assessment on all properties in which bed taxes currently apply, and
- Dedicating the portion of the state lodging tax that is currently appropriated to the general fund.

Stakeholders can convene to develop a consensus approach. A coalition could be formed to lobby the legislature to implement the agreed upon approach.

2. Develop a State Brand and Interpretive Story

Working with the state's tourism organizations, a state brand could be developed. According to the latest thinking in branding, authenticity and brand names are not mutually exclusive. Authenticity is beneath every brand name. Rhode Island should remain authentic to its people, places and history. A cute slogan will be weakly received. A brand, based on the DNA of Rhode Island, will define the state from others and will have lasting results.

- Encourage each segment of the Rhode Island community to carry the state brand throughout the world.
- Tourism promotion, manufacturing, health care, higher education, government, cultural and historical resources, food system production, and seafood production are some of sectors of Rhode Island that must carry the state brand on all collateral.
- Work closely with Brand USA as we promote Rhode Island to the world.

As part of the branding process, the interpretive story of Rhode Island could be developed.

- Tell the story of Rhode Island's cultural activities focusing on ethnic, archeological, architectural, historical, entertainment, literary, and film history.
- Tell the story of Rhode Island's industries, e.g. Bioscience stakeholders expressed a desire to create a narrative/identify for their sector to integrate into the statewide story.
- Consult with the Narragansett, Nipmuc and Wampanoag nations about the most appropriate way to tell the story of the Native Americans in Rhode Island.
- Interpret Rhode Island's role in the development of the United States with tools such as the Independent Trail.
- Work with the Rhode Island Council for the Humanities to emphasize the role of Rhode Island's literary icons.

Roles

Public

Rhode Island Commerce Corporation could convene stakeholders to determine the best approach to creating a dedicated funding mechanism for tourism.

Private

The support of private businesses will be key to passage of dedicated tourism funding legislation.

Non-Governmental Organizations

- Rhode Island Tourism Regional Organizations could be involved with deciding on a new, dedicated funding mechanism, and developing and implementing a state brand.
- Industry associations such as the Rhode Island Hospitality Association and the Rhode Island Real Estate Association could be a part of deciding on a new, dedicated funding mechanism.
- Rhode Island Council for the Humanities could be involved with developing and implement a state brand.

Institutions of Higher Education

Though always a welcome collaborator, there is no explicit role for institutions of higher education in this recommendation.

Resources Needed

Resources would primarily be needed to support:

- The development of a statewide narrative and brand



Timeline

Immediate

- Convene key stakeholders to determine best approach to creating a dedicated funding stream

Up to 1 Year

- Form a coalition to lobby the legislature to dedicate funding to tourism
- Convene key stakeholders to begin statewide narrative and brand development

Up to 5 Years

- Secure dedicated tourism funding
- Implement statewide narrative and brand program

1.2 Promote Access to Water and Marine- and Water-Based Industries to Support Existing Businesses

Background

Intent

Water and Marine-Based Businesses, as defined by stakeholders in the Economic Intersection working groups, include those businesses offering products or services that relate to the water. Some examples include charter boat companies, boat repair companies, shell/fishing ecotourism, and other water-based recreational and tourism providers. Promoting access to marine and water-based businesses would support further growth in this sector, and other unique drivers of the Rhode Island economy. Rhode Island's coastal resources play a major role in the tourism industry, for example. In a survey conducted for the 2010 Tourism Strategic Plan, Beach/Water was the top tourism "product" that came to mind when thinking about Rhode Island. Coordinating the marketing efforts of different water/marine stakeholders, leveraging the strengths of other sectors in marketing water/marine assets, and promoting the coastal resources as part of the state's overall marketing and branding can bolster the economic impact of these assets.

Market Opportunity

According to the Rhode Island Marine Trades Association's (RIMTA) analysis of Rhode Island Department of Labor and Training data, the marine trades and recreational boating alone generate \$1.3 billion in direct spending, 7,100 direct jobs, and \$327 million in direct wages. The marine trades include boatbuilding marine services, which include yacht design, rigging, engine repair, and sail-making. Many of these companies such as Electric Boat and Hall Spar are world leaders in the industry and export products and services around the world. The breadth and depth of the cluster of marine trades related companies that exist in Rhode Island only exists in a couple of other places in the country. This coupled with the sales tax exemption on boats gives the state a true competitive advantage for further growth. Promoting access to water and marine- and water-based industries would support further growth in this, and other, unique drivers of the Rhode Island economy.

Existing Activities

Many organizations are currently working to promote access to water and water- and marine-based businesses. Some examples include:

- The 2010 Tourism Strategic Plan,
- Media tours and editorials in national magazines produced by Commerce RI in partnership with RIMTA,
- The Rhode Island Saltwater Anglers Association PAC efforts to improve and maintain public access to the shoreline, and
- The Rhode Island Marine Trades Association Providence Boat Show.

Furthermore, the Coastal Resources Management Council (CRMC) has a coordinating and oversight role for other state agencies and local governments, which do not inherently consider coastal zone management issues in their decision-making processes. It has a leadership role in

identifying new issues and seeking their resolution. It sponsors coastal zone research that has led to new initiatives in public trust issues, coastal flooding, hazard mitigation, and special area management planning. And it provides the state with a continuing process of public rights-of-way discovery.

Case Studies

In 2011, New York City released *Vision 2020: New York City Comprehensive Waterfront Plan*, a 10-year vision for the future of city's 520 miles of shoreline. This plan provides a sustainable framework for more water transport, increased public access to the waterfront, and economic opportunities that will help make the water part of New Yorkers' everyday lives. *Vision 2020* and the *New York City Waterfront Action Agenda* are the core components of the Waterfront Vision and Enhancement Strategy, an interagency initiative to improve the city's waterfront.

Marine tourism (and the “Blue Economy” in general) is getting increased focus around the world. Locations such as Sweden, Bali, Indonesia, and Scotland are developing marine tourism strategies and/or incorporating marine tourism into broader plans.

Primary Steps to Take

1. Create a Marketing Strategy for the Marine and Water-Based Economy

Stakeholders expressed a need to produce a comprehensive study detailing all of the different aspects of the marine-based economy that intersect with tourism, e.g. people having boats serviced, digging for clams, or diving. Each different activity has a different target audience and message that needs to be articulated. Furthermore, different organizations are responsible for outreach to those audiences, and will need to be engaged and aligned so that their individual marketing efforts are coordinated.

Though a comprehensive marketing study would help ultimately define the audiences and messages for promoting access to water and water- and marine-based industries, some initial recommendations include:

- The East Bay corridor that houses businesses providing a continuum of boat building and repair services could be marketed along with the fact that there is no sales tax on boats in Rhode Island.
- Marinas could be marketed together with the surrounding businesses as “mini resorts”. Outlets for such marketing include national boat shows. RIMTA and Commerce RI do currently collaborate on regional boat shows, but there are additional opportunities in areas like Miami and Fort Lauderdale.
- Support RIMTA's effort to create an app directory to promote access to water and water- and marine-based businesses, including access points, services, and weather. This could build off of the existing Rhode Island Department of Environmental Management (DEM) parks app. This app could be a beta to be implemented in other cities or states.
- Elevate the reputation of Rhode Island seafood, locally, nationally, and globally. Local seafood festivals have been successful marketing tools and could be replicated more across the state. National marketing efforts could be targeted at Midwest audiences, as increasing their knowledge of how to prepare seafood will increase their demand and therefore export opportunities for local

aquaculture businesses. Finally, several Rhode Island businesses have a global presence and could be engaged to identify opportunities to market Rhode Island seafood abroad. For example, SeaFreeze, located in N. Kingstown, recently attended the European Seafood Exposition.

2. Encourage Municipal Participation in Promoting Access to Water

Local municipalities play an important role in promoting access to water and marine- and water-based industries.

- Currently, DEM uses federal grants to build one new pier per year. State and local resources need to be increased to allow for maintenance and repairs to existing piers in addition to adding new piers. Providing resources in the form of matching dollars may incentivize partnerships with municipalities. Access points provide benefits for both recreational and commercial users of the water.
- In addition to piers, marina slips are another key access point to which municipalities could support access. Currently, private boaters drive up the price of marina slips for those using them for ecotourism or other commercial uses. Incentivizing dedicated marina slips for commercial use would help keep costs down for marine- and water-based businesses. Similar programs include [New York City's Historic and Cultural Vessel Docking](#) program.
- Municipal planners could partner with regional tourism councils and private businesses to enhance the “user experience” for tourists, e.g. promoting the Jamestown ferry and running it more often, and addressing parking concerns. Statewide Planning and Commerce RI could co-host a series of meetings with local municipalities and private businesses to fully define the highest priorities and develop solutions.
- One limit to growth in the marine trades sector is the availability of sites with both access to the water and the zoning that allows for marine related business. Statewide Planning could work with municipalities to identify the sites that support those activities and work to clean up the regulatory environment where there is ambiguity and disconnects with the zoning.
- Case studies could be developed of municipalities that do a good job of promoting access to water and their water- and marine-based industries. For example, Bristol was mentioned for their efforts to maintain and enhance marine infrastructure (e.g. lighting piers and providing dedicated commercial slips). Ultimately promoting access to water and their water- and marine-based industries will rely on strong partnerships with municipalities, so developing such case studies could help demonstrate the positive benefits of partnering and investing in these efforts.

3. Strengthen Ties between Marine-Based Businesses and Ports

Rhode Island's ports represent one of its greatest competitive advantages. Other marine-based business could be strengthened by better leveraging the facilities and capabilities of the ports. For instance, the aquaculture industry could utilize cold storage facilities, and the marine trades could utilize ship building facilities and specialized shipping capabilities. This is one area that is prime for collaboration and could be the focus of cross-sector collaboration efforts described in the Facilitating Intersections and Connectivity section.

Roles

Public

Commerce RI could be involved in facilitating the development of a comprehensive marketing strategy for the marine- and water-based industries. Statewide Planning could help facilitate the involvement of local municipalities in improving access to water.

Private

The goal of these efforts is to support marine- and water-based businesses, therefore their engagement in every aspect of this effort is critical, i.e. working with other stakeholders to devise an integrated marketing strategy and support access to water.

Non-Governmental Organizations

Many industry organizations exist to represent marine- and water-based industries, including the Rhode Island Marine Trades Association, Rhode Island Saltwater Anglers Association, and the Rhode Island Shellfishermen's Association, among others. Other recreational groups, for example Scuba divers, could also be engaged relative to their impact on the marine economy. These organizations could partner with public stakeholders to help facilitate the development of a comprehensive marketing strategy. These organizations are often the ones that serve as the marketing arm for the private businesses, and therefore will be critical to implementation of this recommendation.

Institutions of Higher Education

Colleges and universities can serve as neutral third parties in providing data, research, or other informational resources to support this effort.

Resources Needed

Resources will be needed primarily to support:

- Development of the marketing strategy

Possible sources of funding for planning and implementation include:

- Adding a user fee of \$1 per night during certain months on mooring balls for transient (i.e. less than one month) boaters,
- Incorporating marketing dollars into other funded projects, and
- Finding opportunities to pool marketing dollars between related organizations.



Timeline

Immediate

As a way to kick-start the data gathering and planning process, Commerce RI could convene all of the industry associations and organizations that would be affiliated with this effort, including, but not limited to:

- East Coast Shellfish Growers Association
- Rhode Island Marine Trades Association
- Rhode Island Sea Grant and Visual Artists Sea Grant
- Rhode Island Saltwater Anglers Association
- Rhode Island Seafood Marketing Collaborative
- Rhode Island Seafood Festival organizers

Up to 1 Year

A coordinated and comprehensive approach to promoting access to water and the marine- and water-based industries will require a data gathering and planning effort, which itself could take up to a year.

Up to 5 Years

Given the multi-jurisdictional issues associated with engaging municipalities in improving access to water, these efforts could take up to 5 years.

1.3 Create the Rhode Island Center for Design and Manufacturing

Background

Intent

As the work of manufacturing continues to evolve, the collaboration between the manufacturing and design sectors will be critical to idea generation, rapid development and prototyping, packaging, reinvention of products, and more. Rhode Island will seek to use its capacity to support existing manufacturers and attract partnerships from around the globe interested in taking advantage of the Center's services.

Market Opportunity

According to stakeholders, the number of design businesses in Rhode Island continues to grow and grew throughout the recession. Combined with the design expertise housed within its colleges and universities, Rhode Island's wealth of design assets can be applied to expand, transform, and create businesses across the manufacturing spectrum.

Existing Activities

In 2013, Rhode Island received a grant award from the U.S. Economic Development Administration to develop a Center for Design and Manufacturing as part of the federal Investment in Manufacturing Communities Partnership program. This grant is currently being used to design and develop an effort that takes advantage of the combined design and manufacturing capacity residing in the state, including the Rhode Island School of Design, one of the world's leading design institutions.

Primary Steps to Take

This effort is underway with the following steps:

- Evaluating assets and capacity related to design and manufacturing in the state, including public, private, government and higher education resources.
- Conducting a workforce skills and capacity analysis to determine Rhode Island's strengths and weaknesses.
- Creating a business plan for the Center that will identify the 'user' community and benefits of the Center.
- Applying for additional funding from the Economic Development Administration and their partners and other sources.

Roles

Public

- Lead the creation of a business plan for the Center and engage relevant stakeholders in its development.
- Lead the development of a federal grant proposal for the second phase of the Investing in Manufacturing Communities Partnership program.

Private

- Identify opportunities and needs that the Center can serve and work with the Centers partnership group to seek support.

Non-Governmental Organizations

- Identify roles and relationship of existing and planned services to the Center.
- Coordinate the development of new services that inspire design and manufacturing activity.

Institutions of Higher Education

- Identify education and skills development efforts that can support a Center.
- Rhode Island School of Design is a key stakeholder in this effort and part of Rhode Island's competitive advantage.

Resources Needed

Currently resources have been obtained to support the design of the business plan and to support initial pursuit of additional funding. It is expected that the business plan will identify funding and service gaps that will need to be filled.

Timeline

Immediate

- Complete business planning process in March 2014.

Up to 1 Year

- Secure baseline resources to launch the Center.

Up to 5 Years

- Continue to support Center activities and evolve the service mix to support the evolving manufacturing sector.

1.4 Support High Growth Company Opportunities through Tech-Transfer

Background

Intent

Rhode Island is home to numerous high-quality research institutions, such as universities, federal facilities, medical centers, and private companies. Their capabilities relative to global trends (e.g. healthcare, water, etc.) are significant assets and can be a source of economic opportunity. In order to realize these opportunities, stakeholders expressed the need for increased access to technology transfer and commercialization infrastructure within the state. Additionally, early-stage technology- and science-based businesses in Rhode Island described difficulties in establishing business relationships with prospective customers within Rhode Island.

The Rhode Island Science and Technology Advisory Council (STAC) was established in 2005 to develop and coordinate programs and policies supporting the state's innovation economy. In addition to Commerce RI leadership, council members represent major Rhode Island academic, business and policy organizations. STAC administers funding programs, including the recently adopted Innovate RI Fund, an SBIR/STTR matching program and talent development initiative. STAC is also the official oversight body of the Rhode Island Experimental Program to Stimulate Competitive Research (RI EPSCoR) program funded by the National Science Foundation.

Given its existing role and representation within Rhode Island's innovation ecosystem, STAC is in a position to drive further development of the state's technology transfer infrastructure through expanded resources and programs. Specifically, if capacity were to be enhanced, STAC could:

- Advocate for support of tech/start-up investments,
- Identify and support emerging potential high growth sectors (e.g. neuroscience, digital technology) by connecting businesses with researchers, equipment, and other businesses, and
- Strengthen tech transfer and commercialization infrastructure throughout the state.

Ultimately, the goal of this activity would be to increase the ability of local businesses to participate in and access interdisciplinary/high-growth R&D activities and new technology development, which would result in new economic opportunities and greater success for science and tech startups in Rhode Island.

Market Opportunity

Local universities, federal facilities, medical facilities and businesses are engaged in research and development in a variety of areas, including neuroscience, data analytics, naval applications, public health, robotics, and sensors, just to name a few. These organizations are discovering technologies and solutions that could be transferred to the marketplace. If successful, these technologies can be the basis for forming new businesses, helping grow existing businesses, and attracting outside capital to the area.

While industry and non-profits are still significant creators of research and innovation, a growing source of innovation in the U.S. is collaborations with spin-offs from universities and federal laboratories. Furthermore, an increasing number of innovations are federally funded.¹ These spin-offs and innovations can have a significant economic impact for the communities in which they are founded. The Science Coalition's 2013 report, *Sparking Economic Growth 2.0*, showcases 100 companies that can trace their roots to federally funded university research. The majority of these 100 companies received initial funding of \$5 million or less, collectively employ more than 7,200 people, and 89 percent are headquartered in the same state as the university from which they started.

Existing Activities

Given the breadth of this work, STAC could continue to develop strategic alliances with other organizations working towards similar goals. Some of those organizations include:

- BioSciences Leaders – BioSciences Leaders is an organization representing the Rhode Island bioscience industry. This group played a key role in the creation of the Innovate RI program.
- MedMates – MedMates is a healthcare technology network group seeking to accelerate health-tech opportunities by fostering collaboration among public and private stakeholders within the healthcare industry. The organization's members and mission can both support and benefit from expanded STAC functions.
- Digital City – Digital City is developing a community of digital artists and small businesses within Rhode Island. Digital City members and facilities could support startups made possible from increased tech transfer activity within the state.
- Maker Movement – Makers and Maker technology are attracting attention for their role in grass-roots innovation. As Maker communities and equipment become more widespread, Makers can support technology transfer activities such as prototyping and small-scale manufacturing.
- Tech Collective – Tech Collective focuses on developing the state's technology industry, with a particular emphasis on workforce development activities. Tech Collective's programs will be instrumental for supporting a growing innovation economy spurred by expanded STAC programming.
- Founders League – The Founders League is a physical and virtual community of Rhode Island startups. Tapping in to a community of entrepreneurs will help recipients of STAC support succeed in commercial endeavors.
- Angel networks – the New England region is home to a number of angel groups, with at least two based in Rhode Island. Angels are an integral part of the technology commercialization process since they are willing to invest in early-stage businesses not yet being considered by venture capital organizations.
- RI university, medical, and federal research groups and tech transfer administrators – Rhode Island is home to a number of respected research centers, all of which are continually producing new discoveries and technologies. These organizations play a critical foundational

¹<http://www.sciencecoalition.org/reports/Sparking%20Economic%20Growth%20FINAL%202010-21-13.pdf>

role in Rhode Island's innovation economy by conducting the basic research from which new technologies are developed that may eventually be introduced to the market.

Case Studies – Proof of Concept funds

While many universities have established proof of concept (POC) funds and POC centers, some states have developed their own funds to help spur innovation and commercialization:

- South Dakota's Governor's Office of Economic Development (GOED): With support from the US Small Business Administration, the GOED provides up to \$25,000 for research projects that demonstrate the technical and economic feasibility of an innovation. The intent of such research projects is to improve the innovation's commercialization potential.²
- Colorado's Office of Economic Development and International Trade offers POC funding as part of their Advanced Industries Accelerator Programs.³ The POC program awards up to \$150,000 for applied research performed at Colorado research institutions.
- The Life Sciences Discovery Fund (LSDF) in Washington: The LSDF awards up to \$250,000 in proof of concept funding to for-profit and non-profit organizations to enhance the commercial viability of health-related technologies.⁴

Primary Steps to Take

1. Support Innovation, from Promoting Intellectual Property to Developing a Support Network for Startups

Several specific recommendations expressed by stakeholders were:

- Inventory and widely publicize Intellectual Property available at Rhode Island research institutions (e.g., higher education, medical institutions, federal facilities, etc. as permissible),
- Host competitions and awards for best applications of existing and emerging discoveries,
- Develop and award proof-of-concept funding, and
- Develop a network of service providers, mentors, and investors for technology- and science-based startups.

STAC will already be updating its strategic plan in the first half of 2014 and can consider these recommendations as part of that process. A working group of public, private, investor, university and non-profit stakeholders, including those referenced in "Existing Activities", could be engaged to assist in updating and implementing the plan. In order to play an expanded role in developing Rhode Island's innovation ecosystem, additional resources will need to be allocated, including funding for programs and staff, to implement the strategic plan. For example, STAC may need to hire a 'circuit rider' to visit and learn about tech- and science-related organizations and business needs within the state. As noted above, this work will require strategic partnerships with many other organizations, therefore, there may

² <http://www.sdreadytowork.com/Financing-and-Incentives--Proof-of-Concept-Application.aspx>

³ <http://www.advancecolorado.com/funding-incentives/financing/advanced-industries-accelerator-programs>

⁴ <http://www.lsdffa.org>

be opportunities for partnering with existing organizations (state, private, or university) to help fund some programs. Other federal funding sources could also be investigated and resources dedicated to applying for such funds when applicable.

2. Connect Technology Companies with Potential Partners and Services

Despite Rhode Island's small size, it is not always easy for emerging companies to make the connections they need to grow. On one hand, it is difficult for the emerging companies to identify and meet with established companies with whom they could partner; on the other hand, established companies often don't have the market intelligence or capacity to know if and how to partner with an emerging company. Ultimately though, these Business-to-Business connections are critical for supporting innovation, commercialization, and new business development.

STAC, in partnership with other partner organizations (e.g. MedMates), can reduce the risk for established Rhode Island companies to partner with up-and-coming technology companies by coordinating personal connections between potential partners. Quarterly meetings could rotate among various locations and venues throughout the state, with networking time/activities at each event. Additionally, an online, user-driven marketplace could be launched, which would act as a central repository for businesses, service providers, and prospective employees to share information about events, programs, services, partnership opportunities, jobs, etc. (Stakeholders referred to the previous RI Nexus website as an example of this type of resource, and also to the Tango RI proposal – see Facilitating Intersections and Connectivity – as a possible platform.) STAC and its partner organizations could monitor website activity for current topics and skill needs within the local tech community. This information could then inform programming for the quarterly meetings and spur the development of short-term, intensive training programs serving the tech community. Workshop participants suggested that this training could be developed with industry input, with practicing professionals as instructors.

Roles

Public

Commerce RI and STAC will play key roles in improving Rhode Island's innovation ecosystem. As part of their strategic planning and new program implementation, STAC could connect technology- and science-based startups to resources such as IP within the state, regional technical assistance providers, mentors, and investors, as well as establish and award proof-of-concept funding.

STAC and Commerce RI could also be responsible for building an operating the online marketplace, coordinating networking summits, facilitating personal connections and partnerships, and partnering on grant opportunities.

Federal labs and facilities would also have a role to play as participants in the marketplace, collaborative projects, networking summits, and grant proposals. Furthermore, they could establish facility use and testing agreements with private companies for access to equipment and testing services.

Private

Private businesses, including small technology companies and large anchor institutions or organizations (e.g., hospitals, insurers, CVS, major manufacturers, etc.) would also be participants in the marketplace, collaborative projects, networking summits, and grant proposals. Furthermore, they can advise on skill development needs and proof-of-concept funding competitions, partner with research institutions for access to equipment and testing services, and participate in or instruct short-term, intensive training programs.

Non-Governmental Organizations

Non-profit and industry associations (such as Tech Collective, MedMates, BioSciences Leaders, DesignxRI, etc.) would be participants in the marketplace and grant proposals, and will facilitate/host networking summits and collaborative partnerships. They would also provide technical assistance to private businesses and advertise and advise on proof-of-concept funding competitions.

Institutions of Higher Education

Rhode Island's colleges and universities will participate in the marketplace, collaborative projects, networking summits, and grant proposals/funding competitions. They can also develop and provide short-term technical training programs to enhance skill development of Rhode Island residents and tech/science businesses, as well as establish facility use and testing agreements with private companies for access to equipment and testing services.

Resources Needed

Resources will be needed primarily to support:

- Development, maintenance, and marketing of the online marketplace
- Additional staff for STAC
- Hosting quarterly meetings

Note: In 2009-2010 STAC was building a “circuit rider” function but due to a budget has not been able to provide this service. Restoring the STAC budget to its \$1.5 million level would allow STAC to pick back up on this function and other suggestions in this section.

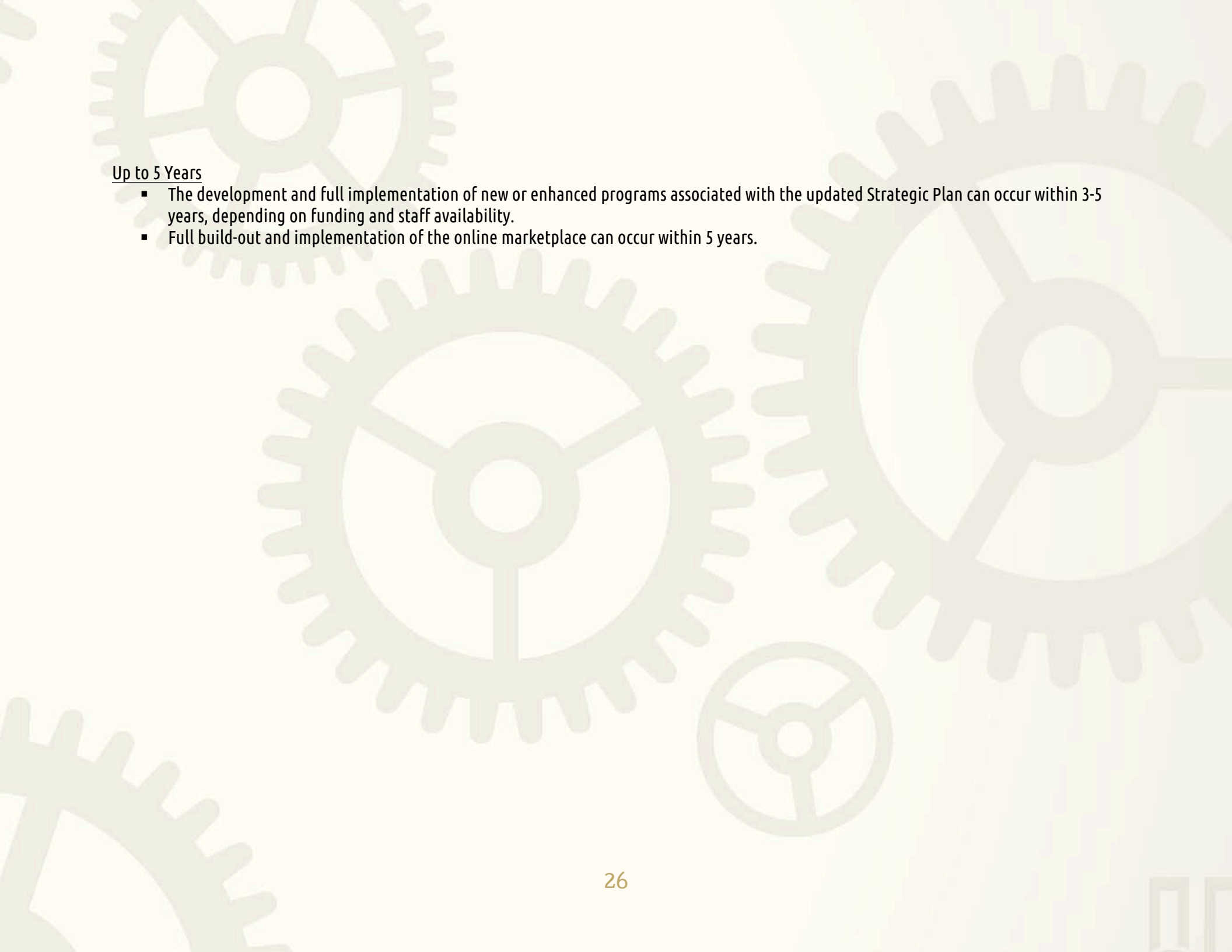
Timeline

Immediate

- STAC will be updating its strategic plan in the first half of 2014

Up to 1 Year

- Initial implementation of the strategic plan can occur within a year



Up to 5 Years

- The development and full implementation of new or enhanced programs associated with the updated Strategic Plan can occur within 3-5 years, depending on funding and staff availability.
- Full build-out and implementation of the online marketplace can occur within 5 years.

1.5 Accelerate the Opportunities Provided by Bioscience, Neuroscience, and Medtech Sector

Background

Intent

Rhode Island is home to a diverse set of life sciences and medtech entities, including research institutions and drug and device developers and manufacturers that are working to bring new therapeutics, instruments, vaccines, software, and textiles to market. To realize the benefits of these assets, the community must focus on areas of strength and niche market opportunities. One such niche is in the area of brain science, where alignment between the research at Brown University's Institute for Brain Science, the University of Rhode Island's Ryan Institute for Neuroscience, and Lifespan's Prince Neurosciences Institute can leverage the entrepreneurial and design community to create new technologies and products.

Market Opportunity

According to the World Health Organization, mental and neurological diseases are a global issue. While neurological disorders may not account for a large proportion of deaths, they are responsible for approximately 11 percent of disease burden worldwide. Furthermore, as life expectancy increases and overall world population ages, the prevalence of neurological disorders such as dementia, Parkinson's disease, and strokes will increase. These conditions are debilitating and can become a social and financial burden for family members and communities.⁵ With the launch of the \$100 million BRAIN initiative, the White House has made neurotechnology development a priority⁶, and the neurotechnology industry is expected to grow over the next decade.⁷

Existing Activities

- BioSciences Leaders – BioSciences Leaders is an organization representing the Rhode Island bioscience industry.
- MedMates – MedMates is a healthcare technology network group seeking to accelerate health-tech opportunities by fostering collaboration among public and private stakeholders within the healthcare industry.
- Rhode Island is home to six collaborative brain science initiatives combining the research of over 100 doctors and scientists and millions of dollars of state-of-the-art equipment.⁸
- The University of Rhode Island announced in November 2013 that it will establish the George & Anne Ryan Institute for Neuroscience with a \$15 million donation from Tom and Cathy Ryan.
- Commerce RI has sponsored Life Science Trade Missions, including a recent one to Israel, which could provide ample opportunity to learn from and partner with Israeli firms.

⁵ http://www.who.int/mental_health/neurology/en/index.html

⁶ <http://www.whitehouse.gov/blog/2013/04/02/brain-initiative-challenges-researchers-unlock-mysteries-human-mind>

⁷ <http://www.neurotechindustry.org/neurotechclusters2010.html>

⁸ <http://www.greaterri.com/Success/Brain-Science.aspx>

Primary Steps to Take

1. **Establish a Cross-Sector Biotech, Medical, and Public Health Oversight Team**
This Team would support a vision and coordinate and sustain statewide “intersection” activities and dialogue. Activities might include identity development and management, cluster identification and development, strategic partnership coordination and networking, collaborative funding opportunities, and communications and education.
2. **Establish a Statewide Inventory of the Sector and Conduct a Competitive Analysis**
The analysis should consider strengths, define gaps, and identify competitive edge. This could be achieved via a consulting position or resourced via organizations’ staff across the state.
3. **Create a Narrative and Identity for the Sector**
A defining narrative and identity would allow the sector to integrate into Rhode Island’s statewide story to improve the profile of the sector and the state on a national and international scale. Other sectors such as the arts and tourism should be engaged to coordinate this effort as part of a statewide branding and narrative development.
4. **Enable and Incentivize a “Profile” System**
The system would engage regional peers to inventory, market, and connect expertise across the state (across discipline, sector, organizations). This effort should be tied into the Tango RI and related initiatives (see Facilitating Intersections and Connectivity).

Roles

Public

Public stakeholders include Commerce RI, Department of Health, and the Science and Technology Advisory Council. These groups can serve as advisors, conveners, and help identify the sector’s strengths and opportunities.

Private

Private businesses, including small technology companies and large, anchor institutions or organizations (e.g., hospitals, insurers, CVS, major manufacturers, etc.) could be engaged to serve on the Oversight Team, and to identify and bolster the sector’s strengths and collaboration opportunities.

Non-Governmental Organizations

Industry support organizations such as BioSciences Leaders and MedMates will be key to the success of biosciences in Rhode Island. These groups could educate members about intersection opportunities and encourage members to participate in these opportunities. They can also be a matchmaker by hosting educational and networking events that convene private businesses, non-profits, and educational institutions.

Other non-profits in the arts, technology, and science fields can help document the bioscience strengths in the state and help foster a sense of the entire state as a key participant in the global bioscience field.

Institutions of Higher Education

Similar to other stakeholders, colleges and universities would be involved by serving on the Oversight Team, contributing to the narrative, participating in initiatives and hosting educational and networking events.

Resources Needed

Resources will be needed primarily to support:

- Identifying regional assets and strengths and developing a database/catalog that can be fed into a common database (see Facilitating Intersections and Connectivity)
- Communications and collaboration activities
- Networking and educational events

Timeline

Immediate

- Recruit members for the cross-sector Oversight Team
- Document assets and capabilities

Up to 1 Year

- Convene stakeholders to develop sector vision and identify cross-sector opportunities

Up to 5 Years

- Coordinated communications
- Participation in collaborative opportunities
- Full participation in profile system

2. Promoting Emerging Opportunities

New market opportunities emerge either from the evolution of another industry sector or to meet new consumer demands. It often takes time before these emerging opportunities are formally recognized within traditional economic development programs and priorities. For example, the number of “makers” cannot be measured using Bureau of Labor Statistics data. Therefore, identifying these opportunities is often left to more qualitative, on-the-ground approaches. If stakeholders rely too heavily on traditional, quantitative analysis to identify economic opportunities, chances to play a regional, national or global leadership role and seize the early benefits of these market opportunities may be lost. However, because they are in the early stages of development, established infrastructure, organizations, and baseline information may not yet exist, from which action can take place. Therefore, many of these opportunities require further definition and planning as a first step. Stakeholders suggested the following opportunities as prime for exploration:

1. Claim Rhode Island as the Center for the Maker Movement
2. Establish a Regional Center of Excellence for Marine and Cybersecurity Technologies
3. Support a Stronger and More Resilient Rhode Island
4. Strengthen the Food Value Web to Increase Food-Related Jobs
5. Coordinate and Enhance Small Business and Entrepreneurship Support Services Targeted at the Food/Health Nexus

2.1 Claim Rhode Island as the Center for the Maker Movement

Background

Intent

According to makerfaire.com, the Maker Movement is “grassroots innovation” that can be developed in any community. According to *Maker Magazine*, many makers are hobbyists, enthusiasts or students, but they are also a wellspring of innovation, creating new products and producing value in the community. Some makers do become entrepreneurs and start companies.

Rhode Island has historically been a community of ‘makers’, with jewelry, silverware, steam engines, furniture, textiles, glass, and other products being manufactured in the state for sale around the world. A base of industrial-scale maker activity continues in the state and is being bolstered by new market entrants.

Market Opportunity

During a one of the Manufacturing/Design/Maker working group sessions stakeholders expressed great interest in, as a group, learning and sharing about the Maker Movement and the opportunities it presents for Rhode Island businesses. Many participants lauded the Maker Movement as an opportunity for innovation and new ways of doing business, while others were interested in its connections with traditional manufacturing and the talent development and educational opportunities this movement presents. Maker related activities underway at Bryant University, AS220, and with manufacturers and designers such as Pilgrim Screw and Ximedica were among the many discussed during the working group.

By claiming Rhode Island as the Center for the Maker Movement, stakeholders hope to:

- Increase awareness throughout the region of Rhode Island’s Maker community and capabilities,
- Increase awareness of and pursuit of opportunities for Rhode Island’s businesses to partner with local makers, and
- Increase networking and collaboration among Rhode Island makers, businesses and business assistance providers.

Recent reports are illustrating the ability for maker-related products to attract investment from crowdfunding sites and support the launch of dozens of new small companies. Makerfaire.com also describes the impact of this movement: “the combination of ingenious makers and innovative technologies such as the Arduino microcontroller and personal 3D printing are driving innovation in manufacturing, engineering, industrial design, hardware technology and education.” In fact, maker related activity is considered to be a key component of the future of manufacturing. Estimates for the size of the market for 3D made products has grown from \$50 million in 2011 to an estimated \$400 million in 2013 and \$1 billion in 2015. Adding to that will be the growth in the tools of the trade including 3D printing and machinery. Furthermore, a new report by Markets and Markets estimates that the global additive manufacturing market was \$1.8 billion in 2012 and is expected to grow to \$3.5 billion by

2017.⁹ Further enhancing Rhode Island's innovation and maker capabilities, and increasing relationships and knowledge sharing between makers and other industry partners has potential to increase business and job growth.

Existing Activities

Claiming Rhode Island as the Center for the Maker Movement is not a stretch as the combination of historical forces with the present design and manufacturing capabilities residing in the state provide the assets needed to see job growth as a result of maker activities. Existing organizations and activities that can be harnessed to do so include:

- AS220 is a central organization in promoting creativity in Providence and beyond and offers classes in fabrication and electronics.
- Rhode Island Mini Maker Faire is a showcase of invention, creativity and resourcefulness, and a celebration of the Maker movement.
- Bryant University's Manufacturing Renaissance Project is being funded in part by a grant from the Rhode Island Foundation, as part of their "Make It Happen RI" initiative.
- Rhode Island Manufacturing Association (RIMA) is an active partner in the Manufacturing Renaissance Project, the RI Design & Manufacturing Center, the Made in RI Manufacturing Collaborative, and other efforts that support the Maker community in Rhode Island.
- Rhode Island Manufacturing Extension Service (RIMES) provides critical training and services to manufacturers, and as such is well poised to support the integration of the manufacturing and Maker communities.
- DESIGNxRI is mobilizing the design community and directing its creative, innovative problem-solving practices towards attracting business opportunities and adding design jobs to Rhode Island while influencing education, commerce, and culture in Rhode Island.
- Providence Startup Weekend is a 54-hour event that mixes students and professionals and culminates with presentations in front of local entrepreneurial leaders with another opportunity for critical feedback.
- Maker Media opened an East Coast office at the Founders League.
- BetaSpring recently added a Maker-in-Residence, Maker Fellow Program, and a small on-site maker shop.

Primary Steps to Take

1. Document Maker-Related Assets and Capabilities

To get started it will be important to recognize the various segments of the maker community and the opportunities for action including manufacturers, colleges and universities, and students. Fully identifying maker resources, locally, regionally, and nationally, and identifying Rhode Island's unique assets and strengths will be a key first step in creating a Maker's Guild. There are already examples of these market participants collaborating and part of the early efforts of the formation of a maker group will be to capture their stories.

⁹ <http://cdn2.hubspot.net/hub/103829/file-383933085-pdf/Additive-Manufacturing-Market-Looks-to-Boom.pdf>

2. Form a Maker's Guild

One area where Rhode Island could be a leader is to form a state-based maker association or guild. Many of those working in this movement are small businesses or even individuals and as a result they may not have access to some of the same benefits and purchasing opportunities as larger enterprises. A maker association can provide access to purchasing power for items ranging from supplies for their projects to health insurance and educational training. An association could also work to identify how to enhance existing government programs to allow maker activities to be included. Programs such as workforce training subsidies have not yet recognized maker-related careers.

3. Leverage Maker Community to Support Business Growth

These ideas could be formed into a multiyear plan to announce Rhode Island's leadership and implement a series of actions that will create jobs in the state. Programs undertaken by the Guild could include:

- Developing an 'innovation' office hours team of makers and designers (perhaps hosted by Rhode Island Manufacturing Extension Services) to assist manufacturers in exploring product innovation and conquering product design challenges,
- Determining initial educational program content that would be most beneficial for/of greatest interest to local businesses and the maker community, and
- Scheduling, promoting, and hosting routine public information events and activities.

Roles

Public

Public stakeholders include Commerce RI, Department of Labor and Training, and the Science and Technology Advisory Council. Together, they could develop program alignment between workforce and economic development programs and maker types of activities, as well as promote events and refer applicable groups and organizations to them.

Private

Private companies are key to the success of a Maker's Guild. In addition to encouraging their employees and leadership to participate in the Guild, they could also host educational and networking events that convene private businesses, non-profits, educational institutions and the maker community. Many private companies have already tapped into the resources and programs listed under "Existing Activities" and can act as de-facto ambassadors to other companies.

Non-Governmental Organizations

Industry support organizations such as the Rhode Island Manufacturing Association (RIMA) and the Rhode Island Manufacturing Extension Services (RIMES) will be key to the success of the Maker Movement in Rhode Island. RIMA would need to educate members about the Maker movement and resources and encourage members to participate in this initiative. They can also be a matchmaker by hosting educational and

networking events that convene private businesses, non-profits, educational institutions and the maker community. RIMES will also need to educate members about the Maker movement and applicable resources, encourage clients to participate in this initiative, and could host the maker 'office hours' program.

Other non-profits in the arts, technology, and science fields can help document the past maker activity in the state and help foster a sense of the entire state as a maker-space.

Institutions of Higher Education

Similar to other stakeholders, colleges and universities will be involved by participating in the initiative and hosting educational and networking events. However, they also have a special role to play through adapting internship programs (see Support the Talent Pipeline) and collaborating with/ providing technical assistance to makers and their partners.

Resources Needed

Resources will be needed primarily to support:

- Identifying regional assets and strengths and develop a database/catalog that can be fed into a common database (see Facilitating Intersections and Connectivity)
- Developing the 'office hours' initiative
- Networking and educational events

Timeline

Immediate

- Bring together group to begin to develop plan for overall effort
- Document assets and capabilities

Up to 1 Year

- Pilot the programming (e.g. 'office hours')
- Convene stakeholders to plan initial calendar of events and educational topics

Up to 5 Years

- Guild can be fully operational

2.2 Establish a Regional Center of Excellence for Marine Technologies and Cybersecurity within the Massachusetts, Rhode Island and Connecticut region

Background

Intent

Many of Rhode Island's schools, businesses, and research institutions are tied to or impacted by the ocean. Many groups expressed interest in leveraging the state's advanced knowledge, technologies and capabilities with water. They described recent successes and future opportunities for developing technology solutions with applications within water and in other environments. There are a number of existing programs and opportunities that can be connected under a center for research and development of marine technologies. The center would explore, develop, and commercialize technology solutions addressing local, regional, national, and international marine-related issues, including maritime cybersecurity.

Market Opportunity

Rhode Island's marine-related research, education, and business organizations are continually exploring advances in marine technology, including resource management, marine engineering, underwater acoustics, marine device manufacturing, and other business, defense, and data (monitoring/analysis) areas. A coordinated approach to connect and support all of these efforts can advance the region's technology capabilities and provide a platform for pursuing additional projects, funding, and market opportunities for marine and cybersecurity R&D programs. Showcasing the region's capabilities will increase national and international awareness of what the region and its businesses have to offer. This can increase the customer base for applications and existing marine technology companies. Furthermore, licensing arrangements and new startups developed from the center's marine technologies can generate competitive and innovative regional companies, as well as revenues for investment in R&D activities, R&D infrastructure and marketing for the region's capabilities.

Existing Activities

Many stakeholders and initiatives are well-positioned to play key roles in the creation of a marine center, including:

- University of Rhode Island's Graduate School of Oceanography
- The Rhode Island Ocean Special Area Management Plan, or Ocean SAMP
- Naval Undersea Warfare Center Division Newport
- The Southeastern New England Defense Industry Alliance
- Rhode Island General Assembly's Defense Economy Planning Commission
- Roger Williams University's Masters of Cybersecurity
- Salve Regina University

The following highlights some of their activities in more detail.

University of Rhode Island's Graduate School of Oceanography has an Inner Space Center for undersea exploration and dissemination of video feeds worldwide. URI's GSO also boasts a Center of Excellence in Undersea Technology. URI's College of Engineering and Computer Science Department were a part of the New England Consortium – Digital Manufacturing & Design Institute proposal.

The Coastal Resources Management Council (CRMC) and the University of Rhode Island developed the Ocean Special Area Management Plan (SAMP). This plan is a tool to map and manage coastal resources, but has also leveraged leading technologies and methods for mapping the ocean and ecosystems around Rhode Island. The SAMP program is also a forum for research related to ocean ecosystems and spatial management. This effort has increased local knowledge of water resources and opportunities and could serve as a starting point for continued marine research and technology activity.

The Naval Undersea Warfare Center Division Newport (NUWC) provides research, development, test and evaluation, engineering, analysis, and assessment, and fleet support capabilities for submarines, autonomous underwater systems, and offensive and defensive undersea weapon systems, and stewards existing and emerging technologies in support of undersea warfare. In addition to developing defense-related technologies, NUWC is or has been involved in the following economic development-related activities:

- Licensing technologies to new or existing businesses
- Hosting Innovation Discovery events to showcase available technologies and explore opportunities for civilian or business applications
- Partnering with local schools and higher education institutions by assisting with curriculum development, sponsoring student projects, collaborating on faculty projects, and loaning equipment
- Providing technical assistance (e.g., engineering or testing services) to local businesses (formerly enabled by funding from the Slater Center)

NUWC has also partnered with EDF-RI, Newport Chamber, and City of Newport to submit a proposal to U.S. Economic Development Administration to support the conversion of the Sheffield School into a marine technology business incubator. Additional support is needed to increase NUWC's profile as a resource among research, commercialization and business forums.

The Southeastern New England Defense Alliance is encouraging Rhode Island leaders to examine opportunities for developing maritime cybersecurity capabilities to support both the defense industry and commercial ports. In October of 2013, they produced a document titled, "Securing the Future: Understanding and Advancing Rhode Island's Defense Industry". This document highlights the opportunity to develop a Maritime Cybersecurity Center of Excellence as a top recommendation and provides greater detail on the proposed approach.

Case Studies

North Dakota has been supporting a Centers of Excellence program to facilitate partnerships between universities and private sector businesses. Centers around advanced manufacturing, life sciences, agriculture, energy, and technology and entrepreneurship were formed with state investment to be leveraged 2-to-1. Between 2005 and 2012, 20 Centers were approved. An economic impact study of the Centers of Excellence program revealed that between 2007 and 2012, the Centers had spent \$44 million in state funds, obtained more than \$190 million in matching and leveraged funds, and reported 1,082 direct jobs in 2012.¹⁰

The National Cybersecurity Center of Excellence (NCCoE) in Rockville, Maryland works with industry, academia, and government to find solutions to businesses' cybersecurity needs. Announced in 2012, it is a public-private partnership between the U.S. Department of Commerce's National Institute of Standards and Technology, the state of Maryland, Montgomery County, and several partner companies. Partner companies have pledged to donate technological resources (such as hardware and software), and to share best practices. The center's goals are to: provide practical cybersecurity solutions; increase the rate of commercial adoption of cyber technologies; and empower innovators to creatively address businesses' most pressing challenges.

Primary Steps to Take

1. Convene Stakeholders and Vet the Opportunity

This effort could begin by convening a Rhode Island working group with regional stakeholders to review and draft the opportunity. Group members could include representatives of universities (researchers, tech transfer and outreach); private companies; federal facilities; state natural resource management groups; STAC; and the defense industry. Other potential partners in CT and MA (e.g. counterparts of working group participants) could also be identified. This working group would be responsible for reviewing and refining the opportunity, and inventorying existing regional infrastructure, researchers and administrative capacity available to support center operations.

Center activities could include:

- Coordination of cross-sector and public-private research and development projects,
- Coordination of research project funding,
- Coordination of testing sites (i.e., bodies of water) in collaboration with regulatory agencies,
- Hosting networking and educational events for center participants and stakeholders,
- Connecting center stakeholders to needed technical assistance and support entities (SBIR/STTR, legal, private sector partners, investors, etc.),
- Providing tech transfer support to center participants and stakeholders, and

¹⁰ http://www.commerce.nd.gov/uploads/resources/569/coe_final_jan2013.pdf

- Conducting an annual showcase of marine technologies to demonstrate region's capabilities to internal and external stakeholders and prospective clients.

In relation to these efforts, participants expressed interest in designating certain bodies of water in and around Rhode Island as testing sites. These sites could be used for activities such as testing new technologies, monitoring water conditions, and testing and researching animal species and activities.

2. Plan for a Marine Center

Several key logistical and operational task will need to be completed to create a marine center, including:

- Creating a neutral entity to coordinate center operations and communications (i.e. the CoE would not be owned by one organization, rather it would be its own independent entity),
- Developing a budget and initial operational plan for the center,
- Raising public, private, and philanthropic funds for center operations, and
- Hire Center staff.

3. Launch the Marine Center

The Center could be launched via an event and full marketing and outreach campaign. Ultimately the Center could connect with and expand ongoing research programs such as SAMP and cybersecurity initiatives at URI and the Salve Pell Center. Ongoing efforts would need to be made to monitor the needs of Center participants and coordinate resources to serve these needs (e.g. R&D infrastructure, SBIR grant writing assistance). Furthermore, ongoing advertising could highlight things such as Center programs, and successes and collaborative research opportunities through the region via annual summits.

Roles

Public

Public stakeholders include Rhode Island Department of Environmental Management (DEM), Coastal Resources Management Council (CRMC), Naval Undersea Warfare Center Division Newport (NUWC), RI Commerce Corporation, Science and Technology Advisory Council (STAC), and RI Defense Economy Planning Commission.

- All of these stakeholders could encourage their counterparts in CT and MA to participate, as well as participate in the Center's programs and activities themselves.
- DEM and CRMC, along with local municipalities, would be important partners in supporting testing site needs and provisioning within the Narragansett Bay and other Rhode Island bodies of water.
- DEM and CRMC, along with NUWC, would also be important collaborators for R&D projects. NUWC could also provide technical assistance to businesses and tech transfer services, as applicable, for discoveries resulting from participation in the Center. Commerce RI and STAC

could also assist with advertising the Center's activities and available IP, as well as supporting and/or providing sponsoring for the annual summit.

- The Rhode Island Defense Economy Planning Commission could also be a source of funding and support.

Private

Private businesses, including energy companies, fisheries, tech startups, software developers, defense and homeland security support companies, and investors could:

- Encourage counterparts in CT and MA to participate,
- Participate in the center's programs and activities,
- Collaborate on R&D projects,
- Support/provide sponsorship for annual summit, and
- License technologies developed via the Center.

Non-Governmental Organizations

The Southeastern New England Defense Industry Alliance has already taken a leadership position in convening stakeholders around the creation of a Center of Excellence and could continue this role. RIMTA, RINLA, and Tech Collective are a few of the other industry associations that could be a part of the Marine Center. These organizations can play an important role as connectors – facilitating connections between Center participants, prospective participants, and prospective customers or end users of the Center's discoveries; and helping connect Center participants to regional resources (e.g., legal help, grant writing assistance, equipment, etc.). More directly, they could provide sponsorship for the Center and/or annual summit, and advocate at local, state, and federal levels for support of the Center.

Institutions of Higher Education

Rhode Island has many universities that could be a part of the Marine Center, including URI, Brown, Bryant, Johnson & Wales, RWU, and Salve. Colleges and universities would be key partners and collaborators on R&D projects, in providing technical assistance to businesses, and in providing technology transfer services. Like all stakeholders, they would also participate in the Center's programs and activities, encourage their counterparts in CT and MA to participate, and help support the Center and/or the annual summit.

Resources Needed

Resources will be needed primarily to support:

- Center operations (Staff, Office supplies and equipment, Office space, Marketing and communications, Events, Travel, Specialized assistance (legal, patenting, SBIR help, etc.))
- Funding for R&D infrastructure and personnel investments (Equipment, Supplies, Personnel such as lab managers, IT support, etc.)



Timeline

Immediate

- Conversations about setting up a Center of Excellence can begin immediately

Up to 1 Year

- Fund-raising and establishing an administrative organization can occur within 1-2 years

Up to 5 Years

- Full implementation and operation of the center can occur within 3-5 years

2.3 Support a Stronger and More Resilient Rhode Island

Background

Intent

Communities, regions, and states throughout the world are evolving their thinking about community and economic development in order to design more resilient communities and economies. Resilience is about people, communities, and systems being better prepared to withstand economic and environmental-related catastrophic events – both natural and manmade – and able to bounce back more quickly and emerge stronger from these shocks and stresses. According to a report from the Rhode Island Nursery and Landscape Association (RINLA), “Rhode Island is the smallest state in North America but has the greatest diversity in terms of its agricultural production and plant-based industries.”¹¹ This provides a unique opportunity to pilot and lead model efforts. These efforts will need to involve an array of participants including product and building designers, predictive modeling experts, testing and validation experts, manufacturers, researchers and more.

One top of mind issue related to resiliency in many communities is water and stormwater management. In many communities there is a movement to integrate a green approach into upgrades that must occur. When dealing with issues such as stormwater management, highway construction, building operations, and food sourcing, there is a growing emphasis on considering costs and benefits beyond the initial outlay of capital, and looking at these activities more from a triple bottom line approach. In this context, “triple bottom line” refers to the impact on people (especially local jobs), impact on environment (both short term and over a time horizon with a changing environment), and impact on financial resources (with an eye towards holistic measurement of that impact from initial capital investment and over the longer-term).

Rhode Island can be a national leader in the support and integration of resiliency planning across its economic and community development strategies, as well as a global thought leader for new resilience technologies and processes research, development and commercialization. The formation of a resiliency collaborative would allow for a diverse set of perspectives to inform the prioritized strategies that can be employed to take advantage of the economic opportunity and produce enhanced economic security.

Market Opportunity

This action is intended to pursue an economic opportunity but also create economic security. The size of the ‘resiliency market’ is not yet well known, but what is clear is that it has seen significant growth in recent years. Better quantifying that market by its segments will be one key action as part of this recommendation. Segments may include:

- Green Infrastructure development for the built environment,
- Coastal land protection,

¹¹ <http://rinla.org/resources/pdf/4%20Page%20Summary%20of%20RI%20Economic%20Impact%20Study.pdf>

- Environmental sensors,
- Preparedness products for large scale disruptions (i.e. Hurricane Sandy rebuilding), and
- Energy efficiency and carbon reduction products and technologies.

Within each of these categories, economic impact could be calculated based on different market segments, e.g. landscape supply, construction, maintenance, etc. The market opportunity relative to green infrastructure investments comes from increased investment in capital projects and related use of private firms in the state to support their development.

Existing Activities

The state has taken critical steps in implementing energy efficiency and conservation policies, developing the country's first offshore wind farm, conducting basic and applied research in next-generation batteries and biofuels, hosting public/private partnerships to address smart grid development, and examining policy questions such as the toxicity of nano-materials and the effects of various environmental exposures. With such cross-sector participation and growing momentum towards alternative energy and environmental protection, Rhode Island is poised to become a leader in the emerging alternative energy and green technology industries.

STAC has identified significant opportunities that emerge where these areas overlap. For example, environmental research into how global warming will affect the oceans and weather patterns will help life sciences researchers understand the potential impacts on human health. Understanding the impacts of climate change is also becoming increasingly important to industry, especially to those businesses that rely on understanding regional weather-related risk, such as fisheries, recreation, real estate and insurance. Thus, these areas, major research and development areas in their own right, are also interrelated at a higher level; growth in one of these areas will stimulate growth in others.

The concept of economic resiliency will impact many of the issues being addressed through the *RhodeMap RI* process and therefore the work here, focused on the economic opportunity, may be a piece of a larger discussion that is advanced as *RhodeMap RI* recommendations are being made. Groups such as the Rhode Island Nursery and Landscape Association, the Department of Environmental Management, the Coastal Resources Management Council, URI Coastal Resources Center, Water Utility District Feasibility Study group, and others will make up the core of the collaborative.

Furthermore, the Rhode Island Foundation is convening an emerging "Stormwater and Green Infrastructure" coalition, which includes the Rhode Island Department of Environmental Management, the City of Providence, RINLA, the University of Rhode Island, and nonprofit groups such as Save the Bay, Conservation Law Foundation, Clean Water Action, and others. The focus is currently on developing a policy agenda and case studies but could be expanded or aligned with this recommendation. The Foundation has also supporting work as part of the Shoreline Special Area Management Plan to conduct vulnerability assessments for Rhode Island coastal communities.

Primary Steps to Take

1. Convene a Resilient Economy Collaborative

Leaders from the following sectors, and others that are part of a resilient systems approach, could be engaged in the Collaborative:

- Nursery and Landscape
- Regulatory
- Investment Community
- Transportation
- Protective Infrastructure and Built Environment
- Water – Waste Water
- Energy Fuel
- Food, including Storage and Delivery
- Communication
- Public Safety
- Social Systems
- Health
- Ecosystem Services – Environment

2. Analyze the Opportunity and Plan for Economic Development through Resiliency

The collaborative will be tasked with developing detailed analysis and a plan for seizing the economic opportunity and security of resiliency. This plan could include:

- Reevaluating stormwater management plans and changes that can better support innovation and the adoption of green infrastructure (build off of RIF coalition work);
- Nurturing of current Rhode Island existing and start-up firms and recruiting new firms to the state that are associated with resilience technology, planning, engineering/procurement/construction and investment;
- Instituting green infrastructure planning and implementation preferences in all expenditures of public funds in Rhode Island (build off of RIF coalition work);
- Considering the adoption of a community and economic resiliency scorecard;
- Analyzing existing and development of new, if appropriate, incentives for businesses providing resiliency-related products and services;

- Reviewing, and if appropriate supporting, the work occurring in Newport and potential reuse of Newport's Sheffield School as a technology incubator/accelerator with a focus on synergies among the technologies related to resiliency, defense, oceanographic, environmental and digital areas; and
 - Analyzing the skills gaps in industry sectors that provide resiliency/green products and services. This would build on the skills gap work be performed in information technology, manufacturing, and other sectors.
3. Seek National Funding
- The increase in impact investing and the increased interest in resiliency from national foundations offer an important opportunity for Rhode Island to pursue national support for its efforts. Key stakeholders could begin to develop relationships with national impact investors and foundations. Rhode Island could position itself as a potential laboratory for testing and developing scalable approaches to economic development through resiliency.

Roles

Public

The state can help facilitate the formation of the Resilient Economy Collaborative and ensure that public stakeholders, such as DEM, CRMC, RI DOT, Office of Energy Resources, and Commerce RI are actively participating. Providence, Newport, and other municipalities are also moving ahead with this type of effort.

Private

Many private engineering, construction, design, architecture, planning, and technology companies (e.g. AECOM, IBM, Skanska) are interested in supporting resilient planning and implementation and could support and participate in the Resilient Economy Collaborative.

Non-Governmental Organizations

The Rhode Island Nursery and Landscape Association, Water District Feasibility Group, and AS220 are but a few of the numerous NGO stakeholders who could be involved. The Rhode Island Foundation is currently doing work around Stormwater Management and Green Infrastructure, upon which this work could build.

Institutions of Higher Education

The University of Rhode Island's Coastal Resource Center is well positioned to serve as a lead.

Resources Needed

Resources will be needed primarily to support:

- Hiring a facilitator/ organizer for the Resilient Economy Collaborative

Existing budgets can be used for skills gap research.

Timeline

Immediate

- Actions are underway that can form the foundation for this effort – a group can be convened immediately to begin to sketch out workplan

Up to 1 Year

- Analysis and planning can be underway within a year
- Proposals for national philanthropic funding can be underway within a year

Up to 5 Years

- A resiliency plan can be completed and a Resilient Economy Collaborative can be actively implementing that plan within 5 years

2.4 Strengthen the Food Value Web to Increase Food-Related Jobs

Background

Intent

The Food Value Web represents the continuum of growing, producing, processing, distributing, and selling food and beverages. Known as a “foodie” state, there are currently many encouraging efforts underway to promote local food in Rhode Island. Its farm-to-restaurant scene is thriving, efforts are underway to make farm-to-institution sales easier and more prevalent, and the Rhode Island Seafood Marketing Collaborative is working to increase the level of Rhode Island seafood sales and consumption. However, while the Rhode Island local food industry is experiencing growth, stakeholders have indicated that increasing the production and consumption of Rhode Island food products is still a significant opportunity for the state’s economy. Rhode Island has a strong direct retail market (e.g. farmers markets, etc.), but there has been little development of a wholesale market. Some demand exists among distributors for local produce (e.g. the Farm Fresh Mobile Market is seeing a steady increase of wholesale sales), but distributors can’t get access to local product. Farmers would rather sell via direct/retail channels because they can get a higher price for their produce. Stakeholders discussed the need to create a collaborative of Rhode Island food and beverage producers to support each other’s sales growth and promotion. The goal of such a group would be to:

- Ensure the reliability of products, both quantity and quality, for buyers, especially restaurant and institutional buyers,
- Increase consumer awareness of locally-produced foods,
- Increase the consumption of locally-produced foods,
- Enable local food businesses to grow and succeed, and
- Support Rhode Island residents in accessing healthy and natural foods.

Market Opportunity

Rhode Island’s economy currently supports 1,200 small business farms and at least an identified 146 food and beverage manufacturers, including wineries, distilleries, and breweries. Many other businesses represent other pieces of the food value web in Rhode Island, including UNFI, a national distributor of natural and organic foods. The concept of a “food value web” represents this range of businesses, from production to manufacturing to distribution to sales.

One percent of Rhode Islanders’ consumption is from local sources. Nationally, local foods sales are booming; they grew from \$4 billion in 2002 to \$5 billion in 2007 to \$11 billion in 2011, according to John Ikerd, University of Missouri agriculture economics professor emeritus. Three-quarters of specialty food retailers say that “local” was the most influential product claim in 2012, according to the National Association of the Specialty

Food Trade.¹² According to the National Restaurant Association, this will hold true for 2014.¹³ If Rhode Island producers are able to expand the definition of local to include the region, the market capacity will grow even greater.

Recently, Johnson & Wales University President Mim Runey shared with the *Providence Journal* the university's efforts to help grow the city's thriving food cluster. She highlighted a few stats that show how Rhode Island's food cluster has grown over the last decade, contributing to the local economy:

- Industries involved in "purchased meals and beverages" grew from \$1.6 billion to just under \$1.8 billion.
- Industries in "accommodations" grew from \$286 million to \$416 million.
- Jobs in food services and drinking places grew by 10 percent.
- Jobs in accommodations grew by more than 8 percent.
- Jobs in food and food-related occupations grew by 9.3 percent.

These data point to the growth in the food-related sector and point to the opportunity. A better-organized and opportunistic value chain will increase output and thereby increase jobs, attract capital from outside the region as Rhode Island products are exported, and expanded markets for Rhode Island's agricultural products. Furthermore, urban agriculture creates opportunities for people who are hard to reach. Even though it may have a small dollar impact, it can bring opportunities to neighborhoods and have a big impact on lives.

Existing Activities

The following activities could be engaged when creating a collaborative of Rhode Island food and beverage producers:

- The College & University Research Collaborative is currently engaging professors to conduct research around the impact of local purchasing;
- Farm Fresh RI was created in 2004 to support the local food system by building capacity along the entire food value chain: producers, markets, and consumers;
- Buy Local RI promotes locally owned independent businesses, supports merchant and commercial associations, and provides a unified public resource where businesses and individuals can find and connect to local products and services;
- Southside Community Land Trust provides land, education, tools, and support for people to grow food for themselves in greater Providence, Rhode Island. Their Lots of Hope program is converting vacant city-owned parcels into urban farms;
- The Rhode Island Food Policy Council focuses on increasing access to local healthy food, increasing the production of and demand for local food, promoting sustainability, and generating equitable economic opportunities for all Rhode Islanders. Additional information about

¹² <http://www.cnn.com/id/49101716>

¹³ <http://www.restaurant.org/News-Research/Research/What-s-Hot>

the Rhode Island food system is available on the RI Food Policy Council's website: Rhode Island Food Assessment and Opportunities for Action, prepared by Karp Resources, November 2011. They will be releasing a land-linking study, prepared in partnership with the Harvard Law Clinic in the first half of 2014;

- Food business incubators such as Hope & Main and Sandywoods Kitchen are supporting the growth of new food businesses by providing commercial kitchens and other business development resources;
- The Department of Environmental Management has also supported land-linking and land leasing activities (e.g., hosting a conference, looking at lease templates, etc.); and
- Rhode Island Agricultural Partnership's mission is to foster the economic viability of the state's agricultural producers, establish a self-sustaining and coordinated delivery of agricultural services and financing to farmers, provide increased food security and access to local food for all Rhode Islanders, and cultivate support among the public and policy makers for the future of agriculture.

Primary Steps to Take

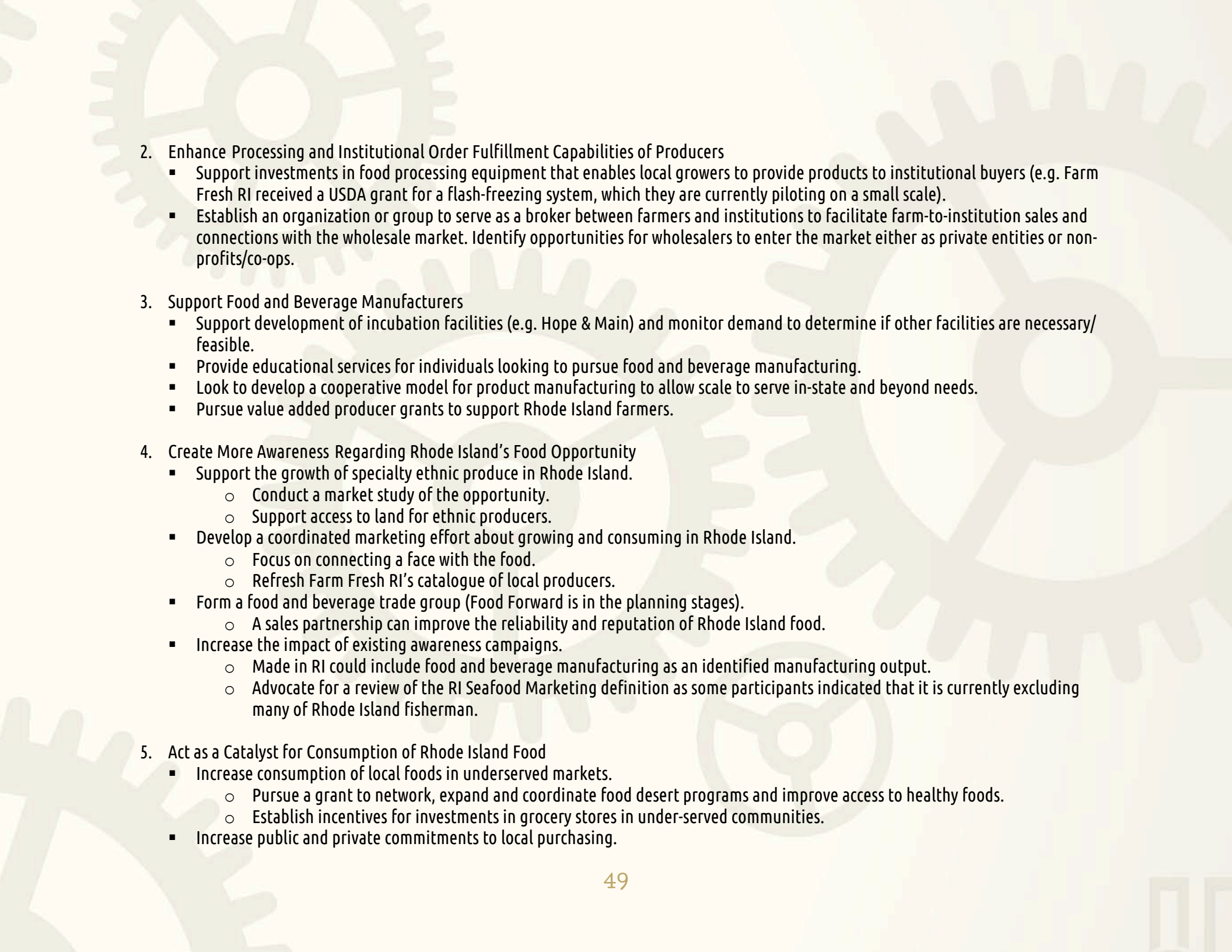
1. Support Additional Growing and Harvesting Activity

Access to land and water for agriculture and aquaculture uses emerged as one of the key issues for stakeholders. Some suggestions for increasing access included:

- If successful, work with Providence and the South Side Community Land Trust to scale the "Lots of Hope" program across the state.
- Enact statewide enabling legislation that allows cities and/or counties to designate urban agriculture investment zones that would tax land committed to urban agriculture for a designated time to be taxed at agricultural, instead of market value, rates.
- Establish a broker/develop a non-profit or coordinated effort to connect new farmers to available land, particularly conservation easements available for farming. This can include connecting aging farmers needing a retirement or exit strategy with new farmers seeking land and ensuring that existing conservation easements are farmed/ maintained as farmland. A related need is to conduct further research and develop expertise on land taxes, zoning and development rights and how they impact or can address farmer retirement needs/issues, including inheritance.
- Conduct feasibility of financially supporting shellfish sea beds similar to several other ocean border communities along the coast.
- Conduct feasibility of use of building in Jerusalem for a shellfish hatchery.

Access to business resources was another issue cited by stakeholders. Suggestions included:

- Develop business training and support services for farmers. Begin by surveying small farmers to identify technical assistance needs (e.g., how to expand, business planning, accessing capital, challenges faced by immigrant farmers, etc.). Continue industry-university conversations to address agricultural industry needs for training programs, etc.
- Provide Rhode Island growers with market data, analysis, and resources on the pros and cons of alternative production methods (greenhouses, vertical farms, hydroponics, etc.).

- 
2. Enhance Processing and Institutional Order Fulfillment Capabilities of Producers
 - Support investments in food processing equipment that enables local growers to provide products to institutional buyers (e.g. Farm Fresh RI received a USDA grant for a flash-freezing system, which they are currently piloting on a small scale).
 - Establish an organization or group to serve as a broker between farmers and institutions to facilitate farm-to-institution sales and connections with the wholesale market. Identify opportunities for wholesalers to enter the market either as private entities or non-profits/co-ops.
 3. Support Food and Beverage Manufacturers
 - Support development of incubation facilities (e.g. Hope & Main) and monitor demand to determine if other facilities are necessary/feasible.
 - Provide educational services for individuals looking to pursue food and beverage manufacturing.
 - Look to develop a cooperative model for product manufacturing to allow scale to serve in-state and beyond needs.
 - Pursue value added producer grants to support Rhode Island farmers.
 4. Create More Awareness Regarding Rhode Island's Food Opportunity
 - Support the growth of specialty ethnic produce in Rhode Island.
 - Conduct a market study of the opportunity.
 - Support access to land for ethnic producers.
 - Develop a coordinated marketing effort about growing and consuming in Rhode Island.
 - Focus on connecting a face with the food.
 - Refresh Farm Fresh RI's catalogue of local producers.
 - Form a food and beverage trade group (Food Forward is in the planning stages).
 - A sales partnership can improve the reliability and reputation of Rhode Island food.
 - Increase the impact of existing awareness campaigns.
 - Made in RI could include food and beverage manufacturing as an identified manufacturing output.
 - Advocate for a review of the RI Seafood Marketing definition as some participants indicated that it is currently excluding many of Rhode Island fisherman.
 5. Act as a Catalyst for Consumption of Rhode Island Food
 - Increase consumption of local foods in underserved markets.
 - Pursue a grant to network, expand and coordinate food desert programs and improve access to healthy foods.
 - Establish incentives for investments in grocery stores in under-served communities.
 - Increase public and private commitments to local purchasing.

- Revise state purchasing program rules so that local procurement is a key decision factor instead of lowest possible price.
 - Work with tourism community, including hotels, to source more local foods and connections to food establishments.
 - Support Providence's schools commitment to purchase local food and scale to other school districts.
- Encourage employers to support workplace wellness programs.
 - Allow or subsidize participation in fresh food delivery programs to the workplace (e.g., Farm Fresh RI's program).
 - Provide health insurance incentives/subsidies for employee participation in wellness programs, if feasible under the Affordable Care Act.
- Establish an ombudsman to serve as an intermediary between industry and regulatory agencies.
 - For example, this position can assist with identifying, communicating and revising specific regulations, and regulatory practices impacting Rhode Island producers.
 - They could also help agriculture and aquaculture businesses navigate regulations, permitting and related activities.

Roles

Public

- Municipalities
 - Review and revise codes and regulations impacting local food production, marketing and consumption
 - Repurpose vacant land for agricultural uses
 - Provide incentives or guidelines for developing grocery stores in under-served areas
- State
 - Revise/expand state purchasing guidelines in support of local sourcing
 - Provide funds for a farmland succession planning program
 - Help educate lenders and investors on capital needs of local producers
 - Work with producers to review and revise regulations that impact local food production, marketing, and consumption

Private

- Rhode Island growers and producers
 - Participate in business training programs and local food sales programs
 - Work with the industry ombudsman to identify and communicate to regulatory agencies specific policies regulations that are impacting production and marketing
- Anchor institutions and major employers
 - Support workplace wellness programs; local sourcing
- Lenders/investors
 - Work with agri-/aquaculture producers to develop capital programs that support local producers

Non-Governmental Organizations

- Partner and collaborate with other stakeholders to pursue grant funding and other fundraising opportunities
- Partner and collaborate to coordinate industry support efforts
- Provide business training and services to food-related businesses
- Support the success of the industry by serving as an intermediary between producers and consumers, between producers and regulators, and between complimentary producers

Institutions of Higher Education

- Research and advise on policy issues for the industry
- Partner with industry stakeholders to identify, develop and provide needed training programs
- Develop, implement, and coordinate industry support programs in conjunction with similar or complimentary non-profit programs
- Transfer research and development of new agriculture and aquaculture ideas and practices to the marketplace
- Example of assistance provided by a University: the University of Wisconsin Cooperative Extension offers the Food Business Innovation Network, which features extensive resources, training and events for local food producers

Resources Needed

Resources will be primarily needed to support:

- New business development/small business support programs
- Institutional sales liaison, Industry ombudsman
- Infrastructure and capital investments
- Marketing campaigns

Timeline

Immediate

- Given the breadth of the actions included in this recommendation, key stakeholders should be engaged to further refine an action plan.

Up to 1 Year

- Any education, business resource, or marketing/awareness actions could begin within a year.

Up to 5 Years

- Working with municipalities to encourage access to land and water, creating new positions, and engaging institutions around purchasing programs are longer-term actions.

2.5 Coordinate and Enhance Entrepreneurship and Small Business Support Services for the Food-Health Nexus

Background

Intent

One category in which Rhode Island may have a competitive advantage is the intersection of the food economy and the health economy (food-health nexus). With limited capacity and resources to offer business support services and capital assistance, it is critical to identify the key value propositions for Rhode Island's food economy and focus resources on supporting businesses in those areas.

Market Opportunity

Though the number of existing businesses working at the intersection of food and health are currently few, the shift to an outcomes-based healthcare system and Rhode Island's implementation of the Affordable Care Act combined with the depth of food- and health-related research being conducted at the state's universities presents a unique market opportunity for new business creation. Increasing the support services for health-related food businesses can help local companies successfully compete in the growing global health food/nutraceutical markets and possibly contribute to positive local health outcomes (which could reduce local healthcare expenditures).

The global nutraceutical industry is estimated to continue to grow as western populations age and countries battle with obesity epidemics. In 2012, PricewaterhouseCoopers reported that, "The global nutraceutical market, estimated to be \$150 billion this year, is forecast to reach \$180 billion by 2017. In the United States, the big beneficiaries of the pharmafood trend are giants like Archer Daniels Midland, Cargill, and Solae—a joint venture of chemical company DuPont and agribusiness company Bunge—as demand for nutraceutical ingredients alone is forecast to top \$4 billion by 2015."¹⁴

There is also a growing interest in the intersection between healthy, local food availability, and positive health outcomes. The USDA report "Local Food Systems Concepts, Impacts, and Issues" presents the concept that "the that local food systems may provide health benefits from improved nutrition, obesity prevention, and a reduced risk of chronic diet-related disease."¹⁵

Existing Activities

The existing Rhode Island businesses in this field are not only profitable companies, but also high-value companies, i.e. social enterprises. Edesia, producer of Plumpy'nut, may be one of the better-known examples. Other private sector stakeholders will be companies such as Blue Cross Blue

¹⁴ http://www.pwc.com/en_GX/gx/retail-consumer/pdf/rc-worlds-newsletter-foods-final.pdf

¹⁵ http://www.ers.usda.gov/ersDownloadHandler.ashx?file=/media/122868/err97_1_.pdf

Shield, Lifespan, and CVS, as they seek to identify and support preventative solutions to expensive health care problems. Already, reimbursement policies are starting to shift and doctors are giving prescriptions for fresh fruits and vegetables.

A great deal of related activity is also occurring at Rhode Island's universities. As the state land grant university, the University of Rhode Island is engaged in extensive research into medicinal uses of plants, new plant varieties that provide greater nutrition, and other related issues. At Brown, their School of Public Health can offer research capabilities into how those plants could translate into better health outcomes. And finally, Johnson and Whales has recently announced the Food Innovation Nexus, an independent non-profit that will be catalyzing innovation and advanced stage start-ups around therapeutic and medicinal food.

Existing resources for food-based businesses include the University of Rhode Island's College of Continuing Education, which can provide training on food safety and regulations; Farm Fresh Rhode Island; the Social Enterprise Greenhouse, which provides business planning services and low-interest loans; and the Hope & Main food incubator, which will offer a host of business development training and services, in addition to the possibility of receiving a micro-loan from the City of Warren.

Finally, Healthy Rhode Island is a project of the Office of Lt. Governor, in conjunction with Governor Chafee's Office, the Executive Office of Health and Human Services, the Office of Health Insurance Commissioner, the Department of Health, and the Health Benefits Exchange, focused on the future of the health care system in Rhode Island. Healthy Rhode Island seeks to chart Rhode Island's course from a volume-based health care system to a value-based health care system. The transformation will be grounded in the principles of the Triple Aim – better population health and a better care experience at a lower cost. Healthy Rhode Island is Rhode Island's State Innovation Model Design Program, an initiative funded by the Center for Medicare and Medicaid Innovation.

Case Studies

West Virginia provides several examples of programs to support food-related small business and entrepreneurship development. The Charleston Area Alliance (WV) SAGE program is a farmer-training-program that teaches participants how to grow large amounts of sustainable produce in urban spaces and how to sell this produce as a stream of household income. The Natural Capital Investment Fund is a Community Development Financial Institution (CDFI) providing flexible financing to small and emerging natural resource-based businesses in rural, economically distressed communities in West Virginia; North Carolina; the Appalachian regions of Virginia, Tennessee, Kentucky, and Ohio; and south Georgia.

Primary Steps to Take

1. Identify the Value Proposition and Market Opportunity

The opportunities around the intersection of food and health are many and need to be more thoroughly researched to inform a strategic approach to supporting small business development in this emerging field. University stakeholders could be engaged to conduct further

research, both qualitative and quantitative, to identify several key value propositions for the food/health market opportunity. This will be critical in gaining the support of universities, established companies, and state legislators. As part of this effort, intersections with key economic drivers in the food value chain could be identified, e.g. Johnson & Wales, the seafood industry, the restaurant industry, and the processing and distribution industry.

2. Cultivate Small Business and Entrepreneurship Resources

Once the most strategic opportunities are identified, non-profit, private, and public stakeholders have a role to play in supporting new and growing food/health nexus businesses. An organization such as Commerce RI, perhaps in partnership with Farm Fresh RI, could work with existing business support organizations to coordinate around food/health market opportunity. Though many organizations exist to provide small business and entrepreneurship support services, they many not be familiar with the unique nature of businesses working at the food/health nexus. Therefore, it will require guidance and incentives from funders and domain experts to encourage and assist them in coordinating their services and offering services tailored to this market opportunity.

Larger existing food and/or health businesses can also be engaged to support new business creation around the food/health market opportunity. Interested businesses could create a fund to support new business development. In exchange for their contributions, they could host an event such as SwitchPitch, where established companies pitch funded innovation projects to qualified startups looking for partners. Furthermore, established companies could act as business coaches or mentors for new food/health businesses.

Finally, private and non-profit stakeholders can work with the state to incentivize new business development around this market opportunity through tax policy, access to capital, or other mechanisms.

Roles

Public

Public stakeholders can use their status as funders and as a “neutral third party” to convene and align small business support organizations around this market opportunity and to create new financial incentives for the creation of new food/health businesses.

Private

Existing established businesses in the working in the food and/or health sectors could support new business development in order to further build upon this unique market opportunity. They can do this through donating their time as mentors and/or capital to support new business creation.

Non-Governmental Organizations

The Rhode Island Foundation could assist in convening the various interests. Small business and entrepreneurship support organizations can align and tailor their services to support new and emerging food/health nexus businesses.

Institutions of Higher Education

Rhode Island's colleges and universities can support the research needed to fully identify and vet the market opportunity, as well as provide small business support services to new and emerging businesses.

Resources Needed

Resources will be needed primarily to support:

- Market opportunity research
- New resources for small business support organizations to work with food/health businesses

Timeline

Immediate

- Convene key stakeholders and universities to define scope of market opportunity research

Up to 1 Year

- Convene small business and entrepreneurship support organizations to identify existing programming that could be targeted to food/health businesses
- Convene interested established food and/or health businesses to further understand the opportunities they see and their interest in supporting new business development

Up to 5 Years

- Implement new, targeted programming with small business support organizations
- Implement new business development program with established businesses
- Advocate for state support for new business development

3. Facilitating Intersections and Connectivity

The spaces and methods for collaboration and communication are evolving daily and impacting our work and personal lives in profound ways. Participants in the Economic Intersections working groups noted that despite Rhode Island's small size there was a lack of collaboration. As recently as a few years ago the concept of sector collaboration in an economic development plan would be a foreign concept, but today, there is a deeper understanding that collaboration is what makes businesses succeed.

To support increased collaboration in Rhode Island the following actions are recommended:

1. Develop Online Communications Infrastructure
2. Enable Cross-sector Collaboration to Propel Industry Strength and Success

3.1 Develop Online Communications Infrastructure

Background

Intent

During many of the workshops, representatives from a variety of sectors shared their plans and efforts for databases to catalogue and communicate with industry stakeholders. . If not properly aligned, these efforts run the risk of isolating their industry and members from broader cross-sector opportunities or causing “database fatigue” for end users. Other participants expressed the need for a forum to share, promote, and celebrate talent, collaborations, and successes within and across their industries.

Communications infrastructure could be developed to connect these sector resources and encourage and promote collaboration. Specific actions include:

- Implement a centralized system to connect industry networks
- Complement networking efforts with a news portal about successful collaborations

Market Opportunity

The goal of a common online communications infrastructure would ultimately be to increase local purchasing of Rhode Island products; increase awareness of Rhode Island businesses’ capabilities and assistance resources; and increase networking and collaboration among Rhode Island businesses and service providers.

Existing Activities

Examples of existing initiatives:

- MedMates is developing a healthcare technology network group dedicated to galvanizing collaboration between health-tech companies, hospitals, universities, sources of capital and governmental partners.¹⁶
 - Other bioscience stakeholders expressed an interest in leveraging the MedMates profiling system to enable and incentivize a “profile” system among regional peers to inventory, market, and connect expertise across the state, improve recruitment, and strengthen the community.
- DESIGNxRI is mobilizing the design community and directing its creative, innovative problem-solving practices towards attracting business opportunities and adding design jobs to Rhode Island while influencing education, commerce, and culture in Rhode Island.¹⁷

¹⁶ <http://makeithappenri.com/blog/2013/7/9/updates>

¹⁷ Ibid.

- The Manufacturing 2500 Survey Project includes the development of an interactive web site with a database of Rhode Island manufacturers. This will allow businesses to review and identify raw material purchases, and other services going across the country. The planned roll-out is May 2014 at World Trade Day.
- The Greater Providence Chamber of Commerce, the Economic Development Foundation of Rhode Island and the Rhode Island Commerce Corporation have launched a new, interactive economic development website, “Greater Rhode Island: Think Bigger,” to provide a one-stop shop for the critical information needed by business executives as they consider where in the Northeast to grow their business. The website also highlights growth companies and industries.

Primary Steps to Take

1. Implement a Centralized System to Connect Industry Networks
Create a single shared database of Rhode Island individuals and businesses to reduce back-end development redundancy and create a real-time asset map of who is doing what in Rhode Island. Information can be added to the database in two ways:

- An organization may add their existing database of publicly available data to the central database, or
- Individuals can create new profiles or claim their publicly available information to create a personal profile.

Once an individual has created a personal profile, they have a single point of entry to join and access any organization that is participating in the collaborative platform. A user’s personal dashboard will allow them to add information to their profile and set permission levels to share that information with participating organizations. For example, with a single click a person can join MedMates and authorize which personal data fields MedMates can show and with a single click they can revoke those permissions.

Around this central database will be a shared suite of white-label tools that organizations can customize with their own look and feel. This suite of tools includes searchable and sortable member directories and maps, event calendars, job boards, on-line form filling, and forums.

2. Utilize the Database’s Information for Analysis and Planning
In the second phase we will build out a research testbed layer that allows organizations, both public and private sector, to run studies on the data collected. Novel privacy protocols and payment modules will be included to compensate individuals who opt in to studies for use of their personal data. This proposal already has the attention of the World Economic Forum because Rhode Island would be the only place with a statewide collaborative system that would allow for a real life application of new privacy and payment modules.
3. Complement the Database with a News Portal About Successful Collaborations
Existing media channels, such as Providence Journal, Providence Business News, Rhode Island Monthly, and/or existing campaigns, such as “It’s in Our Backyard” could serve as outlets for success stories and developments. A new publication dedicated to highlighting,

promoting, and encouraging these developments can also be created. For example, the Issue Media Group publishes online magazines in locations across the U.S. and Canada “about growth, investment, and the people leading communities into the new economy.”¹⁸ This type of publication can create and disseminate the narrative of change, discovery, and excitement demonstrated during the workshops this fall.

Roles

Public

Given the Rhode Island Commerce Corporation’s role for broader industry representation, the central database could be housed within STAC or the Rhode Island Commerce Corporation.

Private

Private businesses will be key stakeholders in every part of the database creation, from contributing input on design, to subscribing, to sponsoring/supporting creation and maintenance.

Non-Governmental Organizations

Industry organizations currently hosting their own databases would be encouraged to align with this effort.

Institutions of Higher Education

University programs could engage with the database through subscribing, providing support, or advertising technical assistance program on the database.

Resources Needed

Resources will be needed primarily to support:

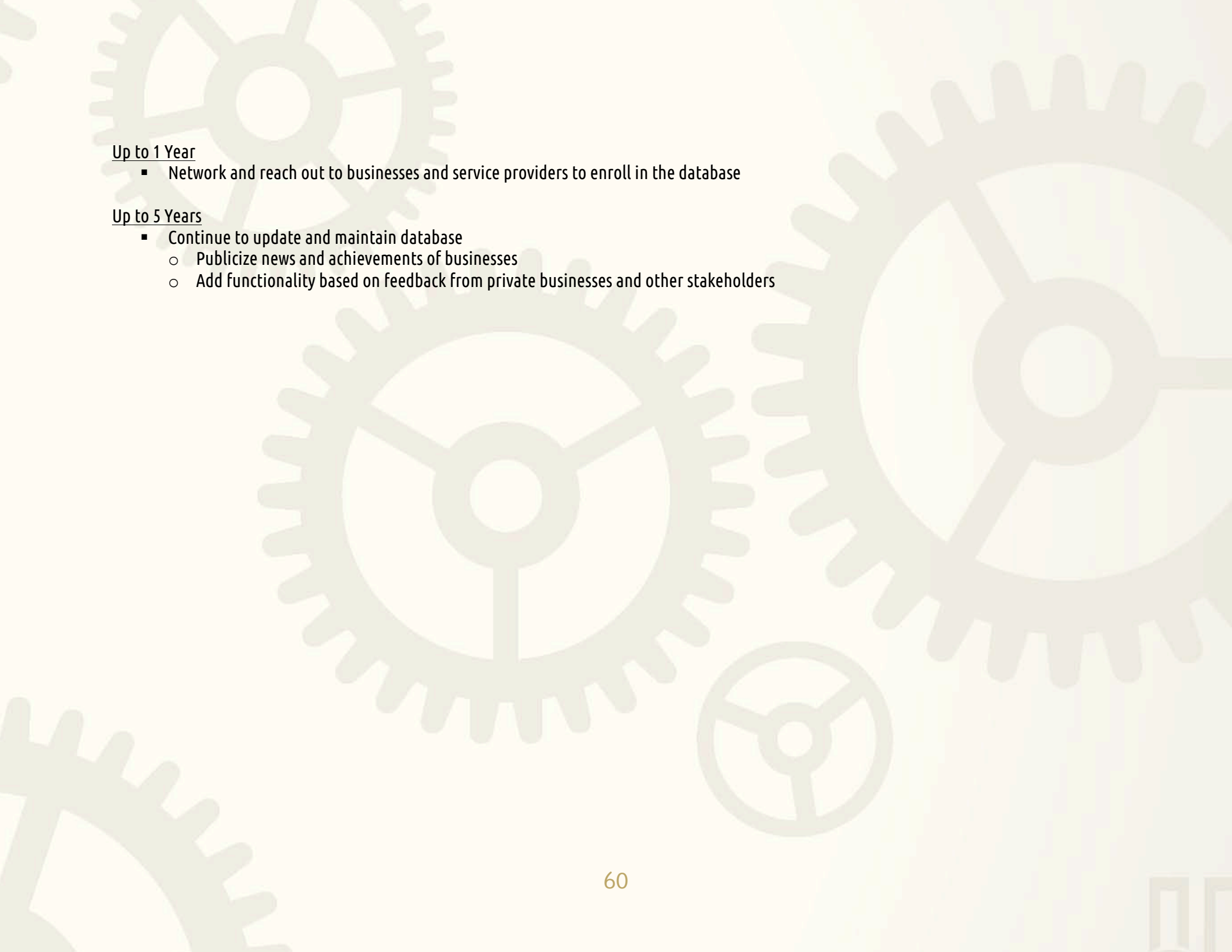
- Web development
- Marketing of the central database
- Development of a news portal

Timeline

Immediate

- Establish personnel to administer the database

¹⁸ <http://www.issuemediagroup.com/about/issue-media-group-about.aspx>



Up to 1 Year

- Network and reach out to businesses and service providers to enroll in the database

Up to 5 Years

- Continue to update and maintain database
 - Publicize news and achievements of businesses
 - Add functionality based on feedback from private businesses and other stakeholders

3.2 Enable Cross-Sector Collaboration to Propel Industry Strength and Success

Background

Intent

Across nearly all industry sectors, stakeholders expressed a need for more opportunities to connect with other stakeholders within and across sectors to leverage talent, eliminate duplication, and cross-promote good work. An example of the former scenario is the logistics and connectivity sectors, which includes businesses working in warehousing and distribution, shipping, telecommunications, and supply chain management, just to name a few broad categories. All of these businesses share clients, and the success of their businesses is intertwined, yet they have no common platform for collaborating to address issues and seize opportunities. Furthermore, nearly every industry expressed interest in collaborating with the technology, arts, and culture sectors to address a host of issues and opportunities. Together, Rhode Island's industries and companies can be greater than the sum of their parts. However, that kind of meaningful collaboration requires an underlying infrastructure and environment. It is not enough to rely on random collisions alone.

Despite the existing narrative around Rhode Island's economy, examples of successful and innovative businesses, non-profits, and partnerships abound. However, despite Rhode Island's small size and perception of connectivity, many of these organizations don't know about each other. Creating platforms for collaboration is important for some very fundamental, but important, reasons: the more everyone knows about everyone else, the more the internal and external narrative shift, the more opportunities there are for cohesion and alignment, for sharing best practices, and for promoting and supporting local businesses and economic development initiatives.

Market Opportunity

Cross-industry interactions and collaborations have become a necessity if businesses want to survive and compete in today's global and fast-changing economy. Accenture advises that, "to reap future growth benefits, companies must smash through the traditional confines of industry walls to seek collaborative opportunities that stretch across multiple business sectors."¹⁹ These fundamental shifts in how Rhode Island's industry stakeholders engage with one another have the potential to support growth in and greater productivity of existing businesses as well as the creation of new businesses.

¹⁹ <http://www.accenture.com/us-en/outlook/Pages/outlook-journal-2013-cross-industry-ecosystems-growth-outside-the-box.aspx>

Existing Activities

Opportunities for collaboration among specific industries or start-up businesses are increasing in Rhode Island. Some examples include:

- The recently launched Founders League is a partnership between Betaspring, Greater Providence Chamber of Commerce, the University of Rhode Island and Brown University to provide co-working space, resources, and platforms for collaboration among Rhode Island's start-up community.
- Start-up Weekend is another platform for budding entrepreneurs to collaborate with each other, students, and professionals to develop business ideas.
- MedMates is Rhode Island's first healthcare technology network group dedicated to galvanizing collaboration between health-tech companies, hospitals, universities, sources of capital and governmental partners.
- Digital City is a growing collective of the "digitally minded" in Rhode Island, providing co-working space, events, and educational opportunities.
- The Rhode Island Council for the Humanities facilitates collaboration among its stakeholders to assist them in addressing business issues.
- The Rhode Island Alliance for Healthy Homes formed as a merger of the Department of Health's Healthy Housing Collaborative, the Housing Resource Commission's Healthy Housing Work Group, and the Green & Healthy Homes Initiatives Steering Committee to provide a well-coordinated and collaborative structure to address healthy homes issues throughout Rhode Island.
- The Greater Providence Chamber of Commerce, the Economic Development Foundation of Rhode Island and the Rhode Island Economic Development Corporation have launched a new, interactive economic development website, "Greater Rhode Island: Think Bigger," to provide a one-stop shop for the critical information needed by business executives as they consider where in the Northeast to grow their business. The website also highlights growth companies and industries.
- The College & University Research Collaborative represents the state's 11 colleges and universities to provide policymakers with academic research that supports their decision-making.
- DESIGNxRI is mobilizing the design community and directing its creative, innovative problem-solving practices towards attracting business opportunities and adding design jobs to Rhode Island while influencing education, commerce, and culture in Rhode Island.
- EdtechRI is about teacher empowerment through education technology and innovation. We bring educators and entrepreneurs together for meaningful conversations, feedback, and beta testing so that better products and practices make their way into more Rhode Island classrooms.
- A group of food and beverage producers have been meeting to consider opportunities for collaboration and cross-promotion.
- In 2013, GPCC reformatted its annual B2B event as the "Garage" as a showcase for high growth Rhode Island companies.

However, while these platforms for industry collaboration are very important, there remains a need for additional platforms for cross-sector collaboration.

Primary Steps to Take

1. Engage Cross-Sector Stakeholders to Advance Market Opportunities

Initially, industry leaders and other “super connectors” could be engaged to identify the range of networks and communities that could and could be engaged. The more diverse the audience, by all measures, the greater the opportunity to identify innovative solutions to industry-specific and system-wide economic development issues. Furthermore, it will be important to develop relationships with journalists from the beginning, to ensure that they understand the intent of the effort and can convey positive stories of cross-sector collaboration.

Cross-sector industry stakeholders would convene regularly around specific market opportunities. For example, bioscience stakeholders expressed a desire for a Biotech, Medical, Public Health Oversight Team to support vision and coordinate/sustain state-wide “intersection” activities/dialogues. Like traditional networking events, these events would allow for cross-sector relationship building; however, unlike traditional networking events, they would be action- and outcome-oriented. Events could begin with industry leaders giving pitches related to problems they are trying to solve (both internal to their company and system-wide) and then participants would self-select the issues on which they want to work. The technology sector has been successfully employing similar formats in start-up weekends, hackathons, and unconferences, and something similar could be created for these cross-sector events. Applied here, for example, Rhode Island universities and institutions have significant amounts of healthcare data that could be analyzed and used to identify healthcare delivery efficiencies and improve patient care. By bringing developers, industry practitioners and other stakeholders together for these types of competitions, relationships can be formed for future partnerships and new solutions for industry can be discovered to improve local business operations and industry outcomes. They also jumpstart and incentivize action.

2. Support the Development of Collision Spaces

A neutral “collision space” could be developed to serve as a common, neutral convening space. This space would be used to host the regular cross-sector collaboration events described above. In the interim, events could be hosted in underutilized pop-up spaces. Libraries could also be engaged as sites for working groups to convene after the events, as they are a statewide network of existing spaces equipped with high-speed internet.

3. Connect Projects to People and Resources

Finally, a dedicated “circuit rider” could provide the personal connection to assist with moving resulting collaborations forward, introducing additional collaborators, and providing overall project management. Given that Commerce RI intersects with every sector and is frequently engaging a diversity of businesses, and that the Rhode Island Foundation supports many collaborative efforts, it would make sense for them to work together to develop the “circuit rider”.

Roles

Public

Given that it intersects with nearly every industry and has already taken a leadership role in convening the Economic Intersections working groups, Commerce RI could play a key role in continuing to convene stakeholders and acting as a circuit rider to support resulting projects.

Private

Private sector businesses and entrepreneurs will be key participants in the collaboration events. Established businesses could also act as financial sponsors.

Non-Governmental Organizations

Given their role in supporting the Economic Intersections process and supporting other cross-sector collaboration, the Rhode Island Foundation would be a key stakeholder. Furthermore, industry associations and other organizations that already convene industry stakeholders will help convene private sector stakeholders. They will help identify stakeholders, market events, and connect resulting projects to additional resources.

Institutions of Higher Education

Colleges and Universities would be key participants in the collaboration events.

Resources Needed

Resources would be needed primarily to support:

- A dedicated circuit rider
- Creation of a “collision space”
- Hosting and marketing events
- Website development


Timeline

Immediate

- Using “pop-up” spaces, these events could begin immediately as an extension of the Economic Intersections process.

Up to 1 Year

- Planning for the “collision space” and website could be underway



Up to 5 Years

- “Collision space”, website, and circuit rider could be fully operational

4. Building Capacity and the Business Ecosystem

A business ecosystem is comprised of many connected pieces that support businesses throughout all stages of their life. An ecosystem could be able to evolve alongside the evolving needs of the businesses it supports. Capital, regulations, logistics, and technical assistance are four of the pieces that industry stakeholders suggested could be bolstered to better support their businesses. Many different types of organizations are involved in creating a strong ecosystem – public, private, non-profit, and higher education. Nearly all of the organizations supporting the business ecosystem could benefit from increased capacity and alignment. In order to improve Rhode Island's business ecosystem the following actions were identified:

1. Increase Logistics and Export Assistance
2. Address Rhode Island's Innovation Capital Gap
3. Create New Mechanisms and Support Systems for Providing Capital to High-opportunity Affinity Groups
4. Enhance Technical Assistance and Industry Organization Capacity to Support Small Businesses
5. Support Office of Regulatory Reform Efforts

4.1 Increase Logistics and Export Assistance

Background

Intent

Traditionally, export support for manufacturers is delivered through programs such as the Manufacturing Extension Partnership, Procurement Technical Assistance Centers, and Economic Development Corporations. However, Rhode Island is among the lowest funded states for these services, despite the high ROI on export assistance programs. Additional resources are needed to support existing export services, and new programs need to be developed to further support businesses in increasing their exports.

Furthermore, Rhode Island's logistics and connectivity infrastructure is a key economic development asset to be strengthened and leveraged by other businesses. Better organization and promotion of the logistics and connectivity services available in the state will in turn support the businesses that are potential consumers of those services.

Market Opportunity

In 2012, 48 percent of U.S. growth was driven by exports; and while, Rhode Island is a leader in imports, they are less of an economic driver than exports. Increasing the volume of goods being shipped to and from Rhode Island, using Rhode Island logistics and connectivity firms, requires both reaching businesses that don't know how to connect with the Rhode Island logistics and connectivity sector, and then aggregating the goods that those businesses are shipping, in order to offer them more competitive prices. By addressing these two issues, Rhode Island can effectively increase the business of its logistics and connectivity firms, while also increasing the productivity of its manufacturers.

Existing Activities

The Chafee Center at Bryant University provides comprehensive international trade services for businesses to expand into international markets. It assists companies both locally and regionally by providing:

- International market research
- Market entry strategies for countries around the world
- Assistance in developing international channel partners
- Assistance in developing global pricing models
- SWOT analysis
- International business plan writing
- Assessment of a company's global supply chain strategy

Through the Center's partnership with Commerce RI, additional programs are available to support local companies in their export activities. Commerce RI's Export Management Training Grant program provides funding to Rhode Island companies for customized export training programs, including business plan development, market entry strategies, export logistics, international trade show development, certification training and foreign language training. This program is offered in partnership with the Governor's Workforce Board.

Finally, the Rhode Island Manufacturing Renewal and Growth Program, produced by the Rhode Island Manufacturing Association, in association with the Chafee Center, has produced notable results. From 2010 – 2013, Rhode Island exports have increased by 60 percent, from \$1.5 billion in 2009 to \$2.4 billion in 2012. An estimated \$11 million in sales and more than 500 new jobs resulted from trade missions to Israel, Japan, Panama, the Dominican Republic, and Canada in the past year alone. Rhode Island companies have also estimated another \$5.3 million in sales from their participation in international trade shows. In addition, more than 1,500 Rhode Island workers received export training.

Primary Steps to Take

1. Identify Export Growth Opportunities

Further data is needed to understand where Rhode Island's growth opportunities are relative to exports, which businesses would benefit from export assistance and to what extent, and what existing businesses have had success with exports. In order to increase the utility of Quonset, it would also be important to identify manufacturers looking to export goods too heavy for containers.

Several unique tools and services could be offered to support businesses in exporting. Equipped with the right data, the state could support the Chafee Center in providing individualized trade plans for businesses that could benefit from export assistance.

2. Create ShipRI App

A ShipRI App would provide a directory of business providing logistics and connectivity services. Currently, many businesses use national providers such as FedEx or UPS to handle their shipping needs because they are unaware of local service providers. For shipping, an app would allow businesses to find providers based on mode, weight, destination (national vs. international), and other variables. For other logistics needs (e.g. storage and distribution), it would allow them to find providers based on product requirements (e.g. cold storage), volume, etc. Variables and functionality can be determined based on interviews or focus groups with businesses to better understand how they currently make decisions about their shipping and logistics needs. Logistics businesses that would want to be included in the directory would pay a membership fee to support ongoing maintenance and development.

3. Create a RI Shipping Association

An independent Shipping Association would be able to combine the freight volume of small and medium sized companies and sign contracts directly with ocean shipping lines on their behalfs, thereby reducing their costs for international shipping. The Gemini Shippers Group is an example of this type of organization. A Shipping Association would also serve to attract more imports to Rhode Island, as

container ships are looking for balanced trade, which is difficult to achieve without aggregating the volume of exports of Rhode Island's small and medium sized businesses. This would also increase Rhode Island's opportunities to be more of a feeder port for New York and New Jersey and could be an organization that would help build relationships with Connecticut ports.

4. Address Regional Logistics Infrastructure Issues

Logistics stakeholders could work with planners and state representatives to identify and address infrastructure issues such as congestion in Providence, weight restrictions on Massachusetts's bridges, and hazardous material transportation. Begin by convening industry and public stakeholders to identify the most critical infrastructure needs, the amount of control that each party has to influence those needs, and the additional resources that would be required.

Roles

Public

Commerce RI could facilitate the creation of ShipRI and the Shipping Association. Commerce RI and Statewide Planning could collaborate with logistics stakeholders to address regional infrastructure issues.

Private

Private sector logistics and connectivity companies would be listed on the ShipRI app and export companies would be members of the Shipping Association. Logistics stakeholders, Commerce RI, and Statewide Planning could collaborate to address regional infrastructure issues.

Non-Governmental Organizations

There is currently no industry organization that represents the entirety of the logistics and connectivity sector. Therefore, creating Ship RI and the Shipping Association will require collaboration among various logistics stakeholders, with Commerce RI facilitating and supporting the effort.

Institutions of Higher Education

Colleges and Universities are always welcome collaborators, but have no explicit role in these recommendations.

Resources

Resources will be needed primarily to support:

- Gathering data and providing individualized export plans
- Development and ongoing maintenance of the ShipRI app
- Legal and marketing fees for creation of a Shipping Association



Timeline

Immediate

- Scale export planning services provided by the Chaffee Center

Up to 1 Year

- Create the ShipRI app

Up to 5 Years

- Create the Shipping Association
- Address regional infrastructure issues

4.2 Address Rhode Island's Capital Gap

Background

Intent

Many participants in the Economic Intersections process have identified availability and/or access to capital to start and grow their business as being a significant impediment to job growth in the state. Bioscience stakeholders also identified the creation of a public/private seed fund as a key priority. This fact confirms analysis completed in February, which noted the following gaps in the Stage 1 and Stage 2 cycles of business growth. The terminology may vary by type of company, but the data and opinions point to the fact that there is a lack of capital especially for young companies, but also further along the business continuum. In addition, there is not enough capital to seed initiatives that will support these businesses and provide business ecosystem services.

There was some debate among stakeholders regarding the level of need versus the number of good ideas and young companies in search of funding. Models from other communities demonstrate the need for a local capital to both serve the role of providing early support and also

Rhode Island Financial Support Strength [by company stage, preliminary review]

STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	Financing Description
Seed stage; initial capitalization	Start-up financing (Series A round of investment); first revenue, no profit	Second stage financing (Series B round of investment); viable business	Working capital; lines of credit with commercial bank	Scaling (Series C round of investment); ramping up operations; mature	
Angel Networks	Venture Capital; Micro loans	Venture Capital; Commercial; SBA loans	Venture Capital; Commercial; SBA loans; RI Small Business Loan Fund	Commercial; RIEDC / RIIFC / IRBA loans; Tax Incentives	Primary Financial Provider(s) / Programs
LOW	LOW - MEDIUM	MEDIUM	MEDIUM	MEDIUM - HIGH	Financial Resource Capacity in Rhode Island

inspire entrepreneurs to take the leap. Locally based seed capital supports the early stages of company formation and also often provides assistance in connecting the entrepreneurs to needed services. Once rooted in Rhode Island, these young companies can attract capital from outside the region.

Rhode Island could pursue the creation of a Fund for Rhode Island's Future by:

- Utilizing a capital raising model employed by other states to create larger pools of capital to act as an economic stimulus, and
- Developing a capitalization plan that either employs tax increment financing based on sector job growth or the sale of tax credits to existing taxpayers (e.g. insurance and utilities).

Market Opportunity

While it is difficult to exactly pinpoint the number of young companies that could be and are trying to form in a given period of time, it is clear that Rhode Island has a strong base on innovators upon which to draw. Recent events hosted by Betaspring, Slater Fund, and others have showcased many young companies that are making progress in the state but are in search of capital and in need of assistance.

One feature that could be added to the models listed previously is the use of the proceeds described as a private sector match/ challenge fund. Stakeholders emphasized the need to better engage the private sector in looking at and investing in these types of deals and supporting young companies in the state.

Existing Activities

The groups that support innovation and startup companies as well as growth companies could be convened to discuss. No existing larger scale capital formation effort has been identified.

- Slater Technology Fund has provided financing to more than 110 technology ventures in Rhode Island and invested \$22 million into companies that have raised in excess of \$356.8 million in external financing.
- Betaspring hosts startups from around the country twice a year for an intensive 13-week accelerator program. They've accelerated 83 companies in six sessions and their alumni have raised \$32 million in follow-on funding.
- Angel Funds servicing Rhode Island include the Providence-based Cherrystone Angel Group, and five other New England-focused groups, including the Bay Angels, Beacon Angels, and Common Angels.
- Community banks are also critical partners in supporting the business ecosystem.

Case Studies

Sector Growth TIF

This model was employed by the State of Kansas in 2004 under their Economic Growth Act. The basic premise is that a baseline of taxes paid by wages of an industry sectors workforce is created. An estimate of what growth in that sector will provide in additional tax revenue is created that then is bonded against with the state's general fund serving as the guarantor. In Kansas they used the BioScience and Health sectors as the base.

For example the following formula would be created:

- 2013 Tax Revenue from Sector X = \$170,000 million.
- 2014 Tax Revenue from Sector X = \$180,000 million, or \$10 million more.
- Some percentage of the \$10 million is pegged to pay off the bond/ debt service.
- Therefore, approximately \$5 million of the growth amount per year for 10 years would be targeted and a \$50 million fund would be created.

This fund would be managed by a board/ authority and could further be used to leverage private capital through matched investments vehicles.

Tax Credit Sale Approach to Fund Creation

In recent years this approach is becoming increasingly attractive to states as it can create immediate pools of capital, with credits being utilized over a longer time horizon. Pennsylvania passed legislation in 2013 creating this type of effort (Innovate PA). Their actions were modeled after Maryland and Tennessee, which were enhanced models of other versions of the program passed in Colorado, Texas, Louisiana, New York, Missouri, and more.

The program sets an amount of tax credits to sell to private institutional tax payers such as Insurance Companies and Utilities. The pool of credits is then sold at some discount via an auction or brokerage to qualified buyers. Typically states are receiving 75 to 85 cents on the dollar for the credits. The proceeds from the sale are then managed as a fund by a state controlled or sponsored entity.

For example the following formula could be created:

- The state would offer \$100 million in tax credits, with a first tax credit redemption date of 2018 and the total redemption amount can be limited.
- The sale would occur and credits would sell for \$.80 on the \$1, generating an \$80 million fund.
- The fund would then be managed and could be leveraged by outside investors via the creation of other public/private funds.

Primary Steps to Take

1. Research Appropriate Legislative Approach

Pursuit of either program will require legislative research to determine if the approach works with the state's tax structure. In addition, the amounts would need to be pegged to a realistic level of exposure related to future tax receipt decreases. There are experts in the Tax Credit Sale model that can be tapped to help develop the program and with Maryland and Pennsylvania recently implementing there are resources to receive real time advice. Either could create independently managed pools of capital.

2. Determine Focus for the Fund and Process for Allocation

A process for allocating the net proceeds of such a program will need to be designed up front to limit bias and conflict of interest. The award of funds to a group for investment can be made by evaluating a set of criteria, such as previous investment track record, demonstration of knowledge of state's entrepreneurial 'hubs', ability to secure match funding and other factors that can be structured by a working group.

A working group could also evaluate the focus of the funding by type of industry (with a focus on benefiting a broad cross-section of companies) and type of investment vehicle. Work as part of this effort indicates that there are startup companies in the areas of advanced manufacturing, information technology, biomedical, energy, and others. Fund managers could be evaluated based on their experiences with these sectors. In addition, the community may want to invest in both traditional early stage venture financing or may pursue other models such as the accelerator model where there are 'classes' of entrepreneurs working together.

3. Find Supplemental Funding from the Private Sector

Utilize funding developed from the approach described in Step 1 to create a match fund program that attracts private sector investment. The two common approaches are: utilizing the state controlled funds to invest in a private equity fund contingent upon \$3 to \$1 match or greater of private funds, or providing a deal by deal match fund for companies securing private sector investment. Either approach would serve to better engage private investors and balance the risk associated with use of the state controlled funds.

4. Track Results

Create a transparent reporting structure to ensure that any funds provided must be closely monitored and reported. Bring in data from other programs around the country to benchmark the Rhode Island performance.

Roles

Public

Commerce RI could be part of the working group.

Non-Governmental Organizations

Slater Technology Fund, BetaSpring, MedMates, and the Rhode Island Foundation could be part of the working group.

Institutions of Higher Education

Universities stakeholders could be part of the working group.

Resources Needed

Resources will be needed primarily to support:

- The legislative and fiscal analysis
- Building a coalition of interested parties to support the effort

This effort can be supported with existing resources, with some funds needed for outside counsel.

Timeline

Immediate

Discussions could start immediately if there was interest in pursuing.

Up to 1 Year

Most states take approximately 1-2 years from initial concept introduction to passage of legislation.

Up to 5 Years

Results could be tracked and reported indefinitely.

4.3 Create New Mechanisms to Provide Capital to High-Opportunity Affinity Groups

Background

Intent

Over the course of the Economic Intersections working groups, several areas emerged that required unique solutions to a lack of capital. Loan products in the marketplace (both public and private) may have underwriting limitations that cannot meet the needs of many of the affinity-related groups in Rhode Island. As a result many groups are left with few options. Three specific areas of focus that were highlighted in this process were minority-owned businesses, arts and culture organizations, and the agri- and aquaculture industry.

Market Opportunity

Minority-owned Businesses

Rhode Island's Latino-owned businesses are a bright spot in the state's economy. According to figures from the U.S. Census Bureau 2007 Survey of Business Owners, Rhode Island Latino-owned business jumped from 3,415 in 2002 to 5,764 in 2007, an increase of 68.8 percent. Over the same time period, revenues increased by 115.4 percent, from \$213.7 million in 2002 to \$460.4 million in 2007. Over the past decade (2000-2010), Rhode Island's Latino population grew 44 percent, adding almost 40,000 residents. The Asian and African American populations also grew by 28 and 23 percent, or 7,000 and 10,000 residents, respectively.

Creative and Cultural Economy

According to a 2011 New England Foundation for the Arts study, in 2009 Rhode Island's 1,163 arts and cultural organizations created 5,200 jobs and over \$324 million in economic activity. The National Governors Association, in its May 2012, report "New Engines of Growth: Five Roles for Arts, Culture and Design," described significant benefits of embracing the Creative and Cultural Economy, including: helping mature industries become more competitive; providing the critical ingredients for innovative places; catalyzing community revitalization; and delivering a better-prepared workforce.

Agri- and Aquaculture

It is estimated that plant-based and agriculture businesses in Rhode Island have a total impact of \$1.78 billion per year and 12,372 jobs. Additionally, in 2011, total sales of fish landed by Rhode Island home-ported vessels in the commercial fishing sector totaled \$201 million; 1,506 vessels had commercial landings. An estimated 6,951 Rhode Island jobs are connected directly to harvesting, processing, distributing, and selling fish landed by Rhode Island home-ported vessels.

Case Studies/Examples

The Navigant Credit Union was established in 1915 to serve the needs of the large immigrant populations coming to Rhode Island to work in the mills. It was established with an explicit focus on being a friendly financial institution for working people, and has since grown to be one of the largest credit unions in Rhode Island.

The Natural Capital Investment Fund is a U.S. Treasury-certified Community Development Financial Institution (CDFI) created to provide flexible financing to small and emerging natural resource-based businesses in rural, economically distressed communities in West Virginia; North Carolina; the Appalachian regions of Virginia, Tennessee, Kentucky, and Ohio; and south Georgia.

The Oregon Cultural Trust works with five Cultural Partners: the Oregon Arts Commission, the Oregon Historical Society, the State Historic Preservation Office, the Oregon Heritage Commission, and the Oregon Council for the Humanities. They direct funds to Oregon's 45 county and tribal Cultural Coalitions that award local grants in their communities and act in a grass roots way to support access to culture throughout the state. They also award annual competitive grants to applicants for cultural projects. Oregon offers a unique tax credit for the support of the Oregon Cultural Trust.

Primary Steps to Take

1. Support the Creation of a Community-based Minority-focused Financial Institution

According to stakeholders, this model could be based on venture capital deals that are likely to generate solid financial returns. The community-based specialized financial institution would identify profitable investment opportunities that would also have a positive impact on the economic climate and quality of life in emerging minority markets by evaluating and developing deals and providing ongoing advice, contacts and support. Other qualities of the institution would include:

- Focus on double bottom line, each investment must make business sense and offer benefits to the investors and the business owner or entrepreneur.
- Unite and mobilize the minority business community in the cause of economic development.
- Support economic development and social investment goals.
- Prioritize high impact projects involving public-private partnerships where the Fund can serve as a catalyst.
- Provide networking opportunities with major businesses that could provide technical training, advice and could become a business partners with the minority enterprise funded.

2. Support Specialized Funding for the Creative and Cultural Economy

Specific funding mechanism suggested by stakeholders include:

- A United Cultural Fund, based on trusts established in other states (e.g. Massachusetts, Connecticut, Minnesota, and Oregon). The scope could include a broad range of creative and cultural priorities, including preservation and land conservation in addition to arts

and culture. Revenue sources could include corporate contributions, income tax, sales tax, and federal funding. A management structure and procedure for allocating funds would need to be established with the support of stakeholders.

- Coming out of the Arts and Economic Development Charrette held in 2013, several organizations have been collaborating regarding common infrastructure and facilities needs. Last week, Governor Chafee included in his proposed FY2015 budget \$35.2 million of new general obligation bonds to be submitted to the voters on the November 2014 ballot for renovations to theaters and performance spaces throughout the state.
- Initiate RISCA/Commerce RI/STAC/PTAC partnership. RISCA and Commerce RI could partner with STAC to create an Innovation Seed Fund program, with of grants \$10-20K; for science and technology projects that integrate food, textiles, 3D printing, and other CCE activity, e.g. create a Science of Food joint venture between RISCA and STAC or SBIR, Small Business Innovation grant.
- Commerce RI could work with RIHPHC and partners to expand the Providence Revolving Fund model on a statewide basis. Since 1980, the Providence Revolving Fund has been preserving Providence's architectural heritage and stimulating community revitalization through advocacy, lending, technical assistance, and development in historic areas.

3. Support Specialized Funding to Grow the Agri- and Aquaculture Industry

Industry stakeholders identified three areas where additional capital could support business growth and new business creation:

- Identify opportunities to attract out of region capital sources (e.g. banks, investors) that prefer to invest/ provide capital to food related projects and companies. Stakeholders noted regional investors could do more in Rhode Island if they had a local partner(s) to assist in due diligence and underwriting.
- Provide low interest loans to aquaculture businesses and agricultural operations looking to upgrade equipment and facilities.
- Identify capital to support transition of farming and aquaculture operations to new ownership through succession planning and sale in order to retain these operations as natural resources and food producers.

Roles

Public

While the Minority-focused Financial Institution will ultimately be privately run, it will need cooperation from financial regulatory agencies and initial support from the state and Commerce RI. The other programs will be publicly managed, at least in part, by various state agencies. For instance, the Department of Environmental Management has already begun work on succession planning for farmers, and could partner with Commerce RI to provide capital to support those transitions.

Private

For the Minority-focused Financial Institution, major financial institutions could provide seed funding, established businesses could be engaged to provide mentoring and participate in networking opportunities, and existing credit unions, such as the Navigant Credit Union could provide guidance on initial development. Private funders could also be considered for the United Cultural Fund. Major financial institutions can also

partner with region investors to support food-related projects and businesses. Private businesses and organizations will be the recipients of all of the proposed programs.

Non-Governmental Organizations

NGOs working with or representing minority businesses (e.g. the RI Black Business Association, the Hispanic American Chamber of Commerce of RI), the Creative and Cultural Economy (e.g. the RI Council for the Humanities, RI State Council on the Arts), and the agri- and aquaculture industry (e.g. RI Shellfishermens Association, Farm Fresh RI) could be involved in the development of their respective funding mechanisms.

Institutions of Higher Education

College and universities can align their small business and entrepreneurship support services with these funding programs. Many departments make a priority of engaging their students in projects that support small businesses, and could be engaged with this effort.

Resources Needed

Resources will be needed primarily to support:

- Initial planning and development of concepts
- Ongoing funding of the programs

Private and federal funding could be leveraged where possible.

Timeline

Immediate

- For all of the recommendations, initial planning and development of the concepts can begin immediately

Up to 1 Year

- Investigation into feasibility, potential partnerships, and required resources could be complete

Up to 5 Years

- Full implementation and tracking of program results can be underway within 5 years

4.4 Enhance Technical Assistance and Industry Organization Capacity to Support Small Businesses

Background

Intent

Small and emerging businesses need specialized support systems to help them succeed. Industry leaders across many intersection groups expressed the need for increased technical assistance and mentorship, and an expanded network of business service providers that is “culturally competent” and aware of the particular needs of small businesses. Discussions were focused primarily on small and emerging businesses, with a particular emphasis on minority-owned businesses. Suggested activities included assisting aspiring business owners in identifying opportunities, coordinating technical assistance organizations to maximize effectiveness and reach, building a network of culturally competent service providers to assist small businesses, enhancing the advocacy capacity of industry organizations, and identifying opportunities for shared business service.

Market Opportunity

According to the U.S. Small Business Administration (SBA), in 2010 small businesses represented 95.9 percent of all employers in Rhode Island and employed 55.4 percent of the private-sector labor force. The growth of small businesses in Rhode Island is an opportunity for local skill development, job creation, and industry diversification. Enhanced business services, such as training programs and mentorship, targeted towards small businesses, technology firms, and minority-owned businesses will contribute to new business creation and help the state’s small and emerging businesses to succeed.

Existing Activities

There are a number of organizations in Rhode Island that are currently working to provide the types of specialized business services that small businesses require. Examples of existing efforts related to business services include:

- Ocean State Angels provides mentoring for life science companies.
- Center for Women & Enterprise offers mentoring and small business training.
- Rhode Island SCORE is a volunteer organization of working and retired business owners, professionals, and executives who provide entrepreneurs with free counseling.
- The Slater Fund hosts events such as Slater Interactions and Slater Entrepreneurs-in-Residence to assist aspiring entrepreneurs.
- The Rhode Island Small Business Development Center (RISBDC), hosted at the University of Rhode Island and funded through SBA and Commerce RI, offers free one-one-one counseling and low-cost group educational services to small businesses.
- The Rhode Island Black Business Association offers a business education series and industry-specific training sessions, and its small business committee is a forum for discussing common issues.

- The Hispanic American Chamber of Commerce of Rhode Island offers low-cost professional development workshops.
- Examples of work being done by existing industry organizations include, but are not limited to:
 - Tech Collective connects its members with business, workforce, and funding resources, and keeps them abreast of pertinent legislative issues.
 - The Rhode Island Shellfishermen’s Association is involved with a variety of legislative, regulatory, and environmental issues pertaining to their industry.

Case Studies/Examples

- Georgia’s Mentor Protégé Connection program is a partnership among the Georgia Department of Economic Development (GDECD), the Georgia Institute of Technology, and the Georgia Minority Supplier Development Council (GMSDC) aimed at building capacity among small emerging businesses within the state. Through the program, small businesses are partnered with corporate mentors for one year to focus on topics such as new markets and global expansion; new products, services and lines of business; professional development and training; relationship building, governmental affairs and networking; operations and systems, including HR, IT, telecommunications, security and logistics; financial best practices, such as accounting, billing and investor relations; and industry trends and strategic planning.²⁰
- In 2013, the Ohio Development Services Agency elevated the Minority Business office to full division status directly reporting to the Agency director. Ohio also has a 15 percent Minority Business Enterprise set aside goal. The Minority Business Development Division supports small, minority, and disadvantaged businesses through technical assistance, access to capital and bonding, and connection to business opportunities through a network of Minority Business Assistance Centers. Over the past year and a half, the Minority Business Assistance Centers assisted more than 2,970 clients during 341 counseling sessions. Center clients obtained contract awards totaling over \$80 million, loans totaling \$4 million, and surety bonding totaling nearly \$8 million.²¹

Primary Steps to Take

1. **Align and Enhance Technical Assistance Organizations**
 Rhode Island has a number of organizations – both government and NGO – that offer technical assistance to small businesses. However, across Economic Intersection groups, participants noted that such programs are often not well publicized and that programs that teach basic business practices to small business owners are not always on target in their scope. To realign services with demand from the small business community, technical assistance organizations could convene to map service provision, focusing on issues such as overlap, areas of unmet or emerging need, and types of mentorship most requested by small businesses and entrepreneurs (e.g., vetting business plans,

²⁰ <http://www.georgiamentorprotegeconnection.org/index.html>

²¹ <http://development.ohio.gov/files/reports/2013DEVAnnualReport.pdf>

securing work space). From there, a new training and mentoring boot camp for small businesses could be created, with substantial input from small businesses and emphasis on engaging minority- and women-owned business owners.

Ultimately, the system by which technical service providers are funded or promoted could incentivize services that lead more directly to a customer receiving a small business loan. Currently, the metrics that technical assistance providers use to measure success have more to do with the amount of service provided rather than the outcomes of that service. Either economic development stakeholders could work with the funders of technical service providers to better align funding with outcomes, or could develop a third-party certification to promote service providers whose work results in certain outcomes (e.g. loans secured).

Participants also raised the need for increased cultural competency among small business technical assistance providers, with cultural competency encompassing issues of language and culture, industry norms, and small business needs. Examples of steps to address these issues include increasing the number of bilingual employees in technical assistance organizations (with an emphasis on Spanish/English), and developing programs to assist technical assistance providers in outreach and effective engagement of minority populations. A longer term approach would involve advertisement of business service professions such as accounting and law to minority students and bilingual students.

2. Help Aspiring Business Owners Identify New Business Opportunities

Rhode Island can do more to help aspiring business owners identify business opportunities. Entrepreneurs, particularly immigrants, often have the basic skills required to succeed as a small business owner, but lack the connections and know-how needed to build a business from the ground up or to independently identify opportunities to purchase existing businesses. At the same time, small businesses sometimes close simply because owners lack successors. The feasibility of a program to connect aspiring business owners with current owners without succession plans could be investigated. Such a program might entail:

- Creating an online clearinghouse and designating a point person to make connections between aspiring and current business owners;
- Developing mentorship guidelines to improve the chance of a successful transition and continued success;
- Connecting new business owners to broader mentorship and small business services in the state;
- Publicizing the program; and
- Measuring program effectiveness by, for example, tracking whether new business owners are still operating their businesses one year, two years, and three years after the transition.

3. Align and Enhance Industry Associations

New and long-standing industry associations are key mechanisms for helping small businesses communicate their needs to agency representatives and elected officials, and build their capacity to fulfill their missions. Some states, such as Pennsylvania, have the Pennsylvania Association of Nonprofit Organizations; and cities such as Pittsburgh have foundations, such as the Forbes Fund, dedicated

specifically to strengthening the capacity of the non-profit sector. However, Rhode Island industry organizations are lacking the capacity, resources, and support necessary to fully serve small businesses.

Training programs and related funding mechanisms could be developed to support industry organizations in:

- Working with their members to develop and implement an advocacy agenda on the state level;
- Training their members on how to work with agency representatives and elected officials;
- Partnering with state representatives to advance federal advocacy priorities.

Industry associations and umbrella organizations could also help small businesses identify ways to decrease costs by using low- or no-cost resources, sharing space, and sharing certain business services. During the Economic Intersections sessions, arts and culture organizations, and design and maker firms showed particular enthusiasm for these approaches. Industry organizations could serve as a clearinghouse for information on low- and no-cost resources, and explore the notion of collective purchasing for certain types of small organizations and for certain services (e.g., a CFO who is shared among several organizations). Alternately, a larger online venue or umbrella organization could be created for small businesses in Rhode Island to share practical information on service providers (e.g., accountants, marketing firms) and connect with each other to share resources and/or space. Ultimately, however additional training and funding needs to be provided to assist industry associations in providing such services.

Roles

Public

State-supported small business support organizations could work together to align their services and refine their programs to meet the needs of minority entrepreneurs. State agencies can also support a shift in how the success of these organizations is measured.

Private

Private businesses can participate in, and possibly fund, cultural competency workshops. They can also assist in identify market opportunities and success opportunities for aspiring business owners.

Non-Governmental Organizations

- Technical assistance providers could collaborate to align and improve services.
- Minority business associations could provide leadership on creating cultural competency curriculum.
- RISBDC could host a business succession clearinghouse and develop associated mentorship guidelines.
- Given their role supporting non-profit organizations, the Rhode Island Foundation is well positioned to lead the development of new programs to enhance Rhode Island's industry associations.

Institutions of Higher Education

Rhode Island's colleges and universities can participate in aligning their small business support services, can provide research assistance in identifying market opportunities for aspiring entrepreneurs, and can work with minority business associations to market professions, such as accounting and law, to minority students.

Resources Needed

Resources will be needed primarily to support:

- Developing third party certification and mentoring boot camp
- Developing a pool of culturally competent service providers – advertising of CPA/law professions among minority students and cultural competency workshops.
- Identifying business opportunities for aspiring entrepreneurs – research and information dissemination and a succession clearinghouse and mentorship workshops.
- New training and funding mechanisms to enhance the capacity of industry organizations.

Timeline

Immediate

- Convene service providers and industry organizations
- Contact minority business associations for input
- Approach universities about identifying opportunities

Up to 1 Year

- Coordinate with universities on encouraging minority students to enter business service professions (CPA, law, etc.)
- Plan for business successor program
- Establish clearinghouse for business succession opportunities; forums for distributing information on market opportunities
- Develop proposal for new programs and funding to support industry organizations

Up to 5 Years

- Develop third party certification system; create mentoring boot camp; realign technical assistance programs
- Industry organizations could be offering enhanced services to small businesses

4.5 Support Office of Regulatory Reform Efforts

Background

Intent

Numerous participants reported frustration on dealing with the state and local regulatory environments. Therefore, there is wide industry support for the Office of Regulatory Reform's efforts to review all agency regulations that adversely impact small businesses. However, there seems to be limited understanding as to the scope, impact, and overall progress of this effort. More frequent progress reports to industry would help assuage industry concerns over regulatory issues. Furthermore, if more financial support is necessary to support the ORR efforts, it is likely that industry would be highly supportive.

Market Opportunity

We currently have 1,642 regulations in the state and the impact of those regulations on small businesses in particular is unclear. However, as required by 2012 Public Law 445, the Office of Regulatory Reform (ORR) developed an economic impact statement template for agencies to complete for each regulation.

Existing Activities

The General Assembly passed and Governor Chafee signed into law a measure that requires each agency to review 25 percent of its regulations each year for four years until all existing regulations have been evaluated for any adverse impacts on small businesses. Unsatisfied with a four-year review period to determine the impact of regulations on Rhode Island small businesses, Governor Chafee announced his initiative to accelerate this regulatory review by directing regulatory entities to complete an evaluation of 25 percent of its regulations within a 120-day review period by December 31, 2012. This process will continue until all state regulations have been reviewed for any adverse impacts on small businesses, well in advance of the original four-year timeframe. ORR provides ongoing technical assistance to agencies throughout this initiative.

Primary Steps to Take

1. Connect State-level Efforts with Local Review

Stakeholders across Economic Intersection groups emphasized the need to create consistency among municipal zoning and permitting processes. Ultimately, implementing e-government services could provide seamless interactions between municipal and state agencies. Stakeholders felt that reducing cost and time for permitting and development will support new business growth.

2. Assist Businesses in Navigating the Regulatory Process

Stakeholders suggested that the state could make it easier to businesses to navigate the regulatory process by:

- Creating/enhancing industry-specific ombudsman to improve communication and help address issues between industries and their relevant agencies. Ombudsmen can help facilitate productive communication between industry and the agencies that support and regulate them, thus creating more effective programs and more informed regulations to support industry growth.
- Streamlining licensing for new businesses, including establishing a fast-track approval process for the reuse of existing buildings that meet statewide public safety and building standard protocols. Reducing time and cost associated with licensing and permitting with support new business creation and business growth

Roles

Public

The Office of Regulatory Reform could continue to lead these efforts, even with the recent departure of its director. Municipal governments and state agencies (including Commerce RI, DBR, and SOS) will be key players.

Private

Private businesses could be engaged in this process through the ORR and designated ombudsmen.

Non-Governmental Organizations

Industry organizations can act as liaisons between the ORR and their members.

Institutions of Higher Education

The College and University Research Collaborative could identify legislative actions to complement the ORR's efforts.

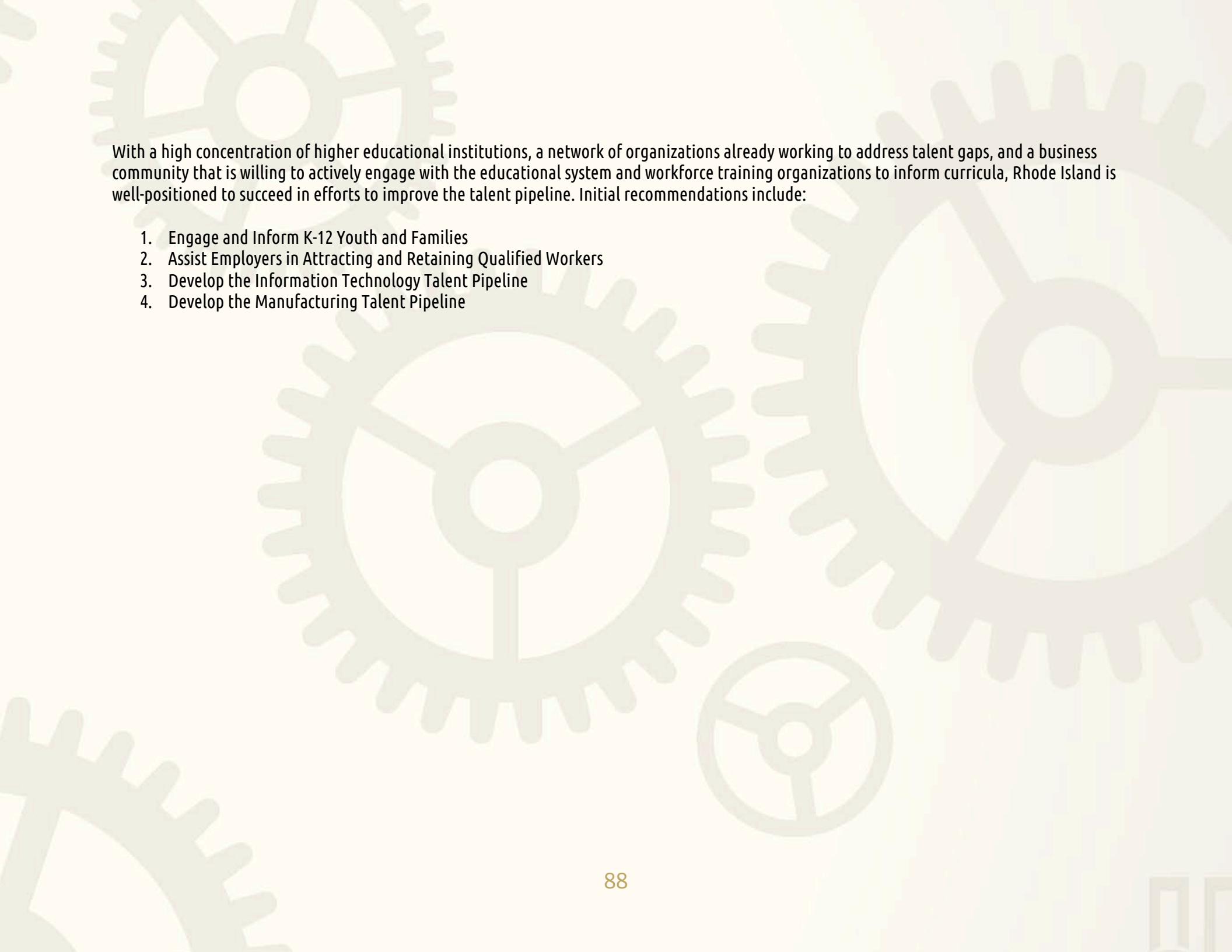
5. Supporting the Talent Pipeline

While Rhode Island continues to suffer from high unemployment rates, according to surveys done by the Department of Labor and Training approximately 10,000 job openings are going unfilled and business leaders are increasingly citing shortages of work-ready applicants for jobs they need to expand their businesses. Across Economic Intersection groups, access to talent was one of the most commonly cited barriers to business growth and innovation in Rhode Island. A particular sense of urgency surrounds the manufacturing industry, which has an aging workforce and limited younger workers stepping up to fill vacant positions, and the information technology industry, in which businesses face talent gaps on a national, basis. Participants from nearly every sector cited similar concerns regarding a lack of qualified workers.

Stakeholders are engaged in a number of emerging and growing efforts focused on seeking resolution to some of these issues. However, more coordination and awareness between the organizers of these efforts, private employers, and the community are needed to make a significant impact. Input received across the Economic Intersection working sessions points to the need for a comprehensive restructuring of the existing approach to workforce and skills development in Rhode Island. A 'system' analysis will need to be conducted to identify the overall gaps, costs to alleviate them, and most effective workforce system structure. Based on input received through the Economic Intersections process, this systematic change may involve efforts such as: reviewing the Community College of Rhode Island's mission and redefining its role in meeting current and emerging educational and employment needs; enhancing the role and resources of the Governor's Workforce Board in developing customized workforce training solutions that align with industry demands; improving coordination among K-12, higher education, and business communities to facilitate curriculum development that is geared towards anticipated industry demands; and establishing more flexible funding streams to encourage program innovation and allow rapid development of targeted occupational training for high-demand industries.

The Rhode Island Senate's recently released *Rhode to Work* legislative action plan provides specific recommendations on how state lawmakers can take action to get Rhode Islanders back to work. The findings of the Economic Intersections process align with and clearly support their recommendations. The *Rhode to Work* report provides a broad set of actions, while this Action Agenda focusing in on four specific ideas that were shared by the private sector representatives in this process.

A full system analysis was beyond the scope of the Economic Intersection focus groups. However, the actions outlined below were identified as actions that can proceed independent of a comprehensive system review – actions that will be consistent with any newly formulated workforce development framework in Rhode Island, and which can be tackled in the short-term, providing a measure of relief for industries currently hit hardest by the state's skills gaps.



With a high concentration of higher educational institutions, a network of organizations already working to address talent gaps, and a business community that is willing to actively engage with the educational system and workforce training organizations to inform curricula, Rhode Island is well-positioned to succeed in efforts to improve the talent pipeline. Initial recommendations include:

1. Engage and Inform K-12 Youth and Families
2. Assist Employers in Attracting and Retaining Qualified Workers
3. Develop the Information Technology Talent Pipeline
4. Develop the Manufacturing Talent Pipeline

5.1 Engage and Inform K-12 Youth and Families

At the most basic level, the strength of Rhode Island's future workforce rests on the quality of the state's educational system, and the ability to engage youth in discussions and hands-on experiences that will give them meaningful exposure to existing and emerging career options in Rhode Island. It is not surprising, then, that enhancing exposure to diverse career choices and to different higher educational paths was suggested by almost all of the Economic Intersection groups.

Background

Intent

A number of participants indicated that students and families often lack information or have misconceptions about what careers in certain fields offer. For example, few high school students or families understand what the Logistics industry includes, what a job in Logistics might entail, or which skills are needed to pursue various occupations related to Logistics. These types of information gaps can be particularly wide in immigrant and low-income communities where exposure to a wide variety of careers may be more limited, an obstacle that can be exacerbated by family language barriers. The existing disconnect between industries with talent gaps and K-12 education needs to be rectified if the state is to meet the long-term talent demand of growing industries.

Market Opportunity

More effectively engaging K-12 youth and their families, and helping them “connect the dots” between their K-12 education and their future academic and career options in Rhode Island will lead to a more highly-skilled and informed workforce.

Existing Activities

There are many different programs that exist to address this issue, including, but certainly not limited to:

- The URI Computer Science Department is currently working to package two of their pre-requisite courses (Cybersecurity Fundamentals and Computer Programming) for delivery to high school students for college credit.
- Tech Collective has several programs, including GRRL Tech and the Youth Speakers Bureau to increase K-12 students' awareness of careers in the technology field.
- In Newport, the Tech Expo program engages middle school students in a 4 week program led by the private sector.
- The Governor's Workforce Board works with its Industry Partners to develop the K-12 talent pipeline through a variety of programs.
- Lego League, FIRST Robotics, and Cyber Challenge are existing programs to engage youth in STEAM education.

Primary Steps to Take

Actions that could be pursued to develop Rhode Island's youth workforce include:

1. **Expand In-School Career Counseling**
One seemingly obvious but potentially very effective way to better engage and inform youth workforce is to expand in-school career counseling. This would require hiring more school career counselors, and redoubling efforts to train existing and new counselors – not just on higher educational paths, but on industry growth trends and emerging fields in Rhode Island. Increasing the capacity and effectiveness of in-school counselors will require improving the quality and timeliness of labor market information that is provided to them by the state.
2. **Increase Exposure to High-Opportunity Industries Through In-School Industry-Led Events**
K-12 schools could regularly host visits from industry representatives to improve student exposure to a number of occupations and career paths. Visiting employees would talk about their jobs, their industries, and emerging opportunities in their fields. Content and format would be tailored to grade level. Successful implementation of a regular in-school industry event program would require ongoing coordination and leadership, possibly in the form of an ombudsman for each school who would be responsible for coordinating visits from private industry.
3. **Build Maker and Innovation Activities into K-12 Curricula**
Opportunities for K-12 students, particularly high school students, to get involved in maker and innovation activities currently exist in Rhode Island and could be leveraged to increase student exposure and enthusiasm. High schools could actively encourage students to attend events such as the Newport Tech Expo and participate in programs such as the Metropolitan Regional Career and Technical (MET) Center for Innovation and Entrepreneurship's "Entrepreneurship 360" program.

Roles

Public

- RIDE – expand in-school career counseling; invite businesses to contribute
- RIDLT – work with RIDE and local higher educational institutions to establish dissemination mechanisms

Private

- Business community – inform agenda

Non-Governmental Organizations

- RIF – facilitate designation of school ombudsman

Institutions of Higher Education

- While not explicitly involved in these activities, institutions of higher education are always welcome collaborators.

Timeline

Immediate

- Convene stakeholders to inventory existing efforts, identify opportunities for aligning, scaling, and new program creation

Up to 1 Year

- Create a coalition to plan for coordinated implementation of programming

Up to 5 Years

- Expanded career counseling, in-school events, and updated curricula are in place

5.2 Assist Employers in Attracting and Retaining Qualified Workers

Background

Intent

Many industry sectors cited difficulties in attracting qualified workers, particularly mid-level workers. Representatives in some industries, such as manufacturing, expressed great willingness to train workers on the job if only they could find workers with suitable soft skills and an interest in their industry. Rhode Island could do a better job of connecting employers with labor pools, grooming emerging workers through internship programs, and offering job training/retraining programs in fields with immediate labor demand. The action agenda items presented here are in alignment with the *Rhode to Work* report, which includes two related recommendations: “Significantly expand the number of internships and apprenticeships” and “Transform adult education”.

Market Opportunity

Rhode Island’s unemployment rate is substantially higher than the US average, and yet, many of the Economic Intersection groups expressed difficulty filling both vacated and newly created positions. Helping to connect Rhode Island employers with qualified labor will enable business growth and reduce unemployment.

Existing Activities

Examples of existing efforts aimed at training workers, and connecting employers with qualified labor pools include:

- The Governor’s Workforce Board, through the RI Work Immersion Program, will partially reimburse businesses for the cost of qualifying paid internships. Organizations in any industry are eligible for the program. They also recently announced a new round of the incumbent worker training grants. These matching grants are for up to \$40,000 for the retraining and/or upgrading of an employer’s existing workforce.
- bRIdge.jobs is a statewide initiative to connect students with internships in Rhode Island. Employers can post internships and students can post profiles and apply for internships through the bRIdge.jobs web site. As part of the bRIdge.jobs project, RI Student Loan Authority, the GWB, the Chamber, and AICU conducted a survey of 300 companies about internships; through Make it Happen, support will be provided for follow-up with outreach and education for employers.
- The URI Business Engagement Center helps to connect URI students and Rhode Island businesses for internship positions and job placements.
- The Innovate Small Business Rhode Island Fund Internship Grant Program provides grants to assist companies in the life sciences and engineering sectors defray the costs of providing internships and mentoring to eligible Rhode Island residents attending a college or university in Rhode Island.

- Tech Collective's IT On Demand is a 14-week program designed to "skill up" workers with prior IT knowledge and experience in preparation for re-entering the workforce at the mid-level.

Primary Steps to Take

To assist employers in attracting and retaining qualified workers, the following steps could be taken:

1. Continue to Track Labor Supply and Enhance the Dissemination of Information

Developing effective labor training and internship programs requires accurate and timely information on labor supply gaps, as well as targeted dissemination of such data. As a starting point, the methodologies and labor categories currently used by RI Department of Labor and Training (RIDLT) could be examined to determine how they align with the current marketplace; for example, does RIDLT labor gap analysis tend to over- or under-represent certain industries because of occupational or industry classifications that may not reflect the nuances of certain industries? At the same time, private businesses and industry associations in key industries could be surveyed to determine potential areas of critical skills gaps. Surveys would include questions on hiring expectations and projections, skills required to fill open and anticipated positions, current sources for identifying and hiring talent, perceived skills gaps, and willingness to host interns.

Labor gap information generated through RIDLT and private sector survey efforts could be disseminated in an easily digestible format to high school guidance counselors and college advisors and department chairs. This will enable counselors and advisors to more effectively communicate job market opportunities to their students, and university leadership to tailor course curriculum to fill critical skills gaps.

2. Expand "IT on Demand"-like Programs to Other Industries

The Tech Collective's "IT on Demand" program (funded by the GWB) was cited by many Economic Intersection participants as a model program for skilling-up mid-level IT workers, helping to meet current labor demands, thereby allowing Rhode Island businesses to grow. This model could be expanded as appropriate to industries outside of Information Technology. Basic steps for expanding this model include:

- Utilize skills gap surveys and other business input to identify greatest needs and prioritize the order in which training programs could be established - prioritize critical skills gaps related to current market opportunities
- Identify which organizations will host the different training programs
- Widely publicize the programs through Rhode Island colleges and universities, RIDLT, Governor's Workforce Board, industry leaders
- Track program outcomes, including the number and percent of program participants hired by Rhode Island firms, hiring firms' satisfaction with the program graduates, etc.

3. Expand Meaningful Interaction Between Higher Education and Industry

Beyond the K-12 level, efforts to link universities and businesses around issues of skills gaps, labor market demands, and curriculum development could be continued and expanded. Based on the volume of phone calls and positive reaction to URI's recently opened Business Engagement Center, demand for such university-business communication tools is high. This model could either be expanded and replicated at other universities, or an organization such as AICU could support a Rhode Island-wide Business Engagement Center. Such business engagement centers can be used as a way for the business community to provide input into curriculum development – based on expected industry trends, anticipated skills gaps, and exciting opportunities in Rhode Island. As this model is expanded, universities and the state need to develop a mechanism for widely publicizing the centers to ensure that the business community is fully aware of their presence and role.

At the same time, department chairs across universities and colleges could convene regularly to discuss their respective programs and the alignment of their curricula with the needs of the Rhode Island business community. Informed discussion among department chairs will require substantial input from the business community on both soft and hard skills sought. In some cases, it may be possible to increase in-state retention of college graduates and meet ongoing demand from Rhode Island businesses through better information exchange alone. For example, many manufacturing participants indicated that their firms would without reservation hire college graduates who have soft skills and initiative but no technical skills, and spend the time and money to provide on the job technical training.

4. Support and Enhance Work Experience Programs and Platforms such as bRidge.jobs

During the Economic Intersection process, some participants knew of and many more became excited by a new program called bRidge.jobs that focused on connecting employers and students in Rhode Island. The program seeks to match employers with students looking to gain valuable experience. This matchmaking is critical to allow students to experience various career paths and for employers to identify bright talent to recruit at an early point in their career. bRidge.jobs currently focused on connecting students and employers in sectors such as IT, Health, Business, Science, Engineering and Manufacturing. Recent investments by the Governor's Workforce Board, \$500,000 for a match-fund for internships, and the Rhode Island Foundation's investment in bRidge.jobs should continue and be more broadly supported.

Roles

Public

- RIDLT – work with RIDE and local higher educational institutions to establish dissemination mechanisms
- Commerce RI – survey firms; work with RIDLT on improving economic development uses for data
- Governor's Workforce Board – fund expansion of IT-on-Demand-type programs, track outcomes
- RI Student Loan Authority – continue to engage in support of bRidge.jobs

Private

- Business community – inform agenda
- Utilize tools such as bRidge.jobs to post internship opportunities and search for candidates

Non-Governmental Organizations

- Explore internship development opportunities

Institutions of Higher Education

- RI universities and technical schools – develop business engagement centers; engage with business community on curriculum and job placement

Timeline

Immediate

- Tracking labor supply gaps and disseminating information is an ongoing activity

Up to 1 Year

- Work with GWB and private stakeholders to scale “IT-on-Demand”-type programs

Up to 5 Years

- Fully expand Business Engagement Center concept

5.3 Develop the Information Technology Talent Pipeline

Background

Intent

According to a 2013 IT skills gap analysis published by Tech Collective, 13,500 people are working in Rhode Island as IT professionals. While this is an all-time high, employers participating in the Economic Intersection groups indicate that it is often challenging to find workers with the right mix of skills, including IT-specific skills, soft skills, and general professional skills. Developing the information technology talent pipeline, largely through initiatives targeted K-12, will be essential to the continued growth of IT industries in Rhode Island.

Market Opportunity

Developing talent and interest in science, technology, engineering, arts, and mathematics (STEAM), particularly computer sciences (CS) at the K-12 levels will help Rhode Island increase its regional and national competitiveness not only in information technology, but across a variety of fields.

Existing Activities

- Tech Collective is hosting a Skills Gap Series comprised of six forums, following the release of two reports focused on skills gaps in the Information Technology and Bioscience industries.
- Bridge Talent is working with a group of industry professionals to create an information technology five-year roadmap to advise the RI-based college CS programs on curriculum development.

Primary Steps to Take

A number of efforts are substantially underway to improve Rhode Island's information technology talent pipeline. The following actions can be taken to support and expand upon existing efforts:

1. **Convene a Summit Between RIDE and Computer Science Chairs**
A summit could be convened at least once a year to bring together the Rhode Island Department of Education (RIDE) and computer science university chairs to address issues including the K-12 curriculum, scholarship programs, and family education on computer science opportunities. IT employers could be invited to discuss ongoing and emerging trends as well as future needs including platforms, operating systems, and development languages.
2. **Train High School Teachers to Use Free Online Computer Science Tools** Industry intersection participants noted that K-12 teachers often have the fundamental skills to teach computer literacy and skills, but lack specific knowledge on the resources available to them or their

students to increase computer science skills. K-12 teachers could be trained in the use of free online tools for teaching computer science to students (e.g., Khan Academy).

3. Develop a Model for Increasing Computer Science Graduates in Rhode Island

Bridge Talent reports that its six academic partners with four-year computer science programs graduate a total of 240 students per year, but have the capacity to increase this number to 495 students per year by 2017. Given the talent gaps cited by IT employers, this is a critical missed opportunity. A program geared towards high school students could be developed to increase the number of computer science graduates in Rhode Island over the next several years. While initially centered on computer science, with thoughtful development, the model could be adapted and scaled to additional industries in the future. The following provides a potential framework for the program:

- Develop a 6-week self-directed high school program where high school students use free online programs to learn to code.
- Invite employees from Rhode Island technology companies to visit high schools throughout the program to coach students and increase enthusiasm.
- Host university representatives at high schools or host open houses to share information on computer science programs.
- Designate a school ombudsman to facilitate. Worcester Technical High School was mentioned by one participant as an example of a school with substantial business engagement.
- Long term, track the number of computer science graduates from Rhode Island colleges and universities, benchmarking against other states.

4. Adapt Existing Rhode Island-based and National Work Experience Programs

Gap year programs can provide high school graduates with needed direction, increase their focus on disciplines of interest to them, and improve prospects of success in higher education and/or the workforce. IT participants noted that creation of a one-year gap year program geared towards computer sciences would bolster the talent pipeline for the IT industry. Such a program could be adapted from existing Rhode Island-based work experience programs and national programs like Venture for America.

Roles

Public

- STAC – work with NGO and private partners (e.g. Tech Collective, Bridge Talent) to develop model for increasing computer science graduates

Private

- Technology businesses - volunteer time at schools; contribute ideas/funding to IT career awareness campaign
- Private sector talent companies – work with public and NGO partners (e.g. STAC, Tech Collective) to develop awareness campaign
- Business community – inform agenda

Non-Governmental Organizations

- Tech-based non-profits/industry associations – work with public and private partners (e.g. STAC, Bridge Talent) to develop awareness campaign

Institutions of Higher Education

- Universities – Computer Science chairs to attend summit with RIDE; provide information to high schools and/or host open houses to publicize applicable degree programs

Timeline

Immediate

- Convene educators and other stakeholders to develop a training program to assist teachers in using free online tools
- Convene stakeholders related to existing work experience programs to begin planning a method for aligning and scaling
- Convene stakeholders to begin developing a program to increase CS graduates

Up to 1 Year

- Summit with Computer Science chairs and RIDE
- Implement teacher training programs

Up to 5 Years

- Full implementation of gap year and CS graduate programs

5.4 Develop the Manufacturing Talent Pipeline

Background

Intent

A particular sense of urgency surrounds the issue of talent for the manufacturing industry. In 2012, more than 60 percent of Rhode Island's manufacturing workforce was 45 years of age or older, according to the Department of Labor and Training. Economic Intersection participants from the manufacturing industry reported great difficulty attracting younger workers to fill the imminent labor gap. Refreshing the talent supply for the manufacturing industry is critical in facilitating the continued evolution of manufacturing in Rhode Island. This can be accomplished through a combination of awareness campaign, internship and apprenticeship programs, and regulatory reform.

Market Opportunity

Refreshing the talent supply for the manufacturing industry will facilitate the continued evolution of manufacturing in Rhode Island. A number of other recommendations include Manufacturing related market opportunities including the development of a Center for Design and Manufacturing, Claiming Rhode Island as the Center of the Maker Movement and promotion of marine and water-sector. For those industries to grow a concerted effort will need to be made to balance business growth with skilled employee growth.

Existing Activities

- The Rhode Island Employers' Apprenticeship Tax Credit for Machine Tool/Metal Trade and Plastic Process Technicians, administered through RI Department of Labor and Training, issues a credit of up to \$4,800 for new apprentices in these fields.
- The Community College of Rhode Island recently launched two certificate programs aimed at addressing the needs of local manufacturers. The programs are Introduction to CNC Manufacturing and CNC Manufacturing/3-D Modeling. Furthermore, they recently received a grant through the Champlin Foundation to upgrade equipment in the college's machining lab.
- The RI Governor's Workforce Board recently voted to spend \$150,000 of general funding to develop two new nontraditional apprenticeship programs – one for 'computer numerically controlled machinists' in the manufacturing industry and one for 'cost-estimators and construction managers' in the building trades.

Case Studies

Examples of initiatives outside of Rhode Island that are aimed at developing a manufacturing talent base include:

- Michigan Manufacturers Association has developed a Manufacturing Talent Summit with the intention of connecting industry professionals, educators and state leaders in the effort to combat Michigan's growing talent crisis."
- Manufacturers in the Charlotte, NC, area are partnering with the Catawba Valley Community College (CVCC) and area school districts to run an apprenticeship program to address the skills gap in their industry. Employers invest \$100,000 per apprentice to cover education,

training and salary. Apprentices start the program during the summer between their junior and senior year of high school. During the school year, school they spend half the day at school, then the remainder of the day at work. Upon graduation from high school, they transition to the CVCC for education. By the end of the apprenticeship program, participants will earn an associate's degree in applied science in computer-integrated machining or mechatronics.

Primary Steps to Take

The following steps could be taken to develop the manufacturing talent pipeline:

1. **Initiate an Awareness Campaign Targeted at Students and Un/Underemployed**
An awareness campaign could be organized to interest students in manufacturing careers, educate teachers and parents about what a manufacturing career in Rhode Island means, and increase awareness among unemployed or underemployed workers in the state. Industry and educational leaders will need to work together to establish the components of the campaign. Potential program elements cited by Industry Intersection participants include: an incentive program to encourage high school teachers and students to visit local manufacturing facilities; recruitment of manufacturing workers to speak at schools; and a public awareness campaign profiling successful young manufacturing employees. The Nebraska Advanced Manufacturing Coalition was cited as one organization that has initiated an effective manufacturing career promotional and awareness campaign.
2. **Explore Feasibility of a New Manufacturing-Focused Technical High School**
Participants from the manufacturing industry suggested that a new state of the art manufacturing-focused technical school in Rhode Island would bolster the reputation of manufacturing and serve as a talent feeder for existing and future manufacturing businesses. As a first step in researching feasibility, Rhode Island educational, political, and business leaders could be convened to tour Diman Regional Vocational Technical High School in Fall River, MA as well as other regional schools that may serve as models. Funding mechanisms in place to sustain Diman could be researched.
3. **Address Regulatory Barriers to After-School Work Programs**
Currently, regulatory barriers make it difficult for high school students to gain after-school manufacturing work experience. A specialized work permit or other documentation that allows them to be on a plant floor would help overcome this barrier.
4. **Develop a Manufacturing Apprenticeship Program**
Participants identified the need to create or improve manufacturing apprenticeship and technical programs in Rhode Island. Existing programs such as RIDLT's Rhode Island Employers' Apprenticeship Tax Credit for Machine Tool/Metal Trade and Plastic Process Technicians need to be better publicized so that manufacturing firms are aware of them. In addition, the state could create a manufacturing

apprenticeship program, developed and executed with substantive input from private firms, that would provide pre-screened applicants to existing manufacturing businesses.

5. Modernize CCRI Manufacturing Program Facilities

Economic Intersection participants from the manufacturing industry indicated great need for newly equipped and modernized CCRI training facilities and equipment for manufacturing programs. These investments are necessary for the state to attract youth and other potential future employees to manufacturing occupations, and to train them in the use of equipment and technologies commonly employed by Rhode Island's manufacturing firms. Community College of Rhode Island facilities and manufacturing equipment need to be improved, both to attract new students to manufacturing careers and to better prepare them to enter the workforce.

Roles

Public

- K-12 schools – invite manufacturing employees to speak at school; include manufacturing career options in career counseling
- State – consider creation of new manufacturing-focused technical high school, research models in other states; fund upgrade of CCRI facilities

Private

- Manufacturing firms – hire interns and entry-level employees to develop talent pool; self-educate on available internship/apprenticeship programs
- Business community – inform agenda

Non-Governmental Organizations

- Rhode Island Manufacturing Association – help inform and implement awareness campaign
- Nonprofits – organizations such as RiverzEdge and Junior Achievement of Rhode Island may be able to assist in educating high school students about manufacturing careers

Institutions of Higher Education

- CCRI will play a key role in improving the quality and relevance of manufacturing technical programs.

The background of the page features a light beige color with several large, stylized, interlocking gears in a slightly darker shade of beige. The gears are of various sizes and are positioned in a way that they appear to be meshing together, creating a mechanical theme. The overall aesthetic is clean and professional.

Timeline

Immediate

- All of these recommendations could be carried out in a coordinated and comprehensive manner. Therefore, a coalition of interested stakeholders could be convened immediately to plan for implementation of these recommendations.

Up to 1 Year

- An awareness campaign, better communication between data stakeholders and guidance counselors, and creating a specialized work permit for after school programs could be underway within a year.

Up to 5 Years

- Opening a new manufacturing technical school, creating a new apprenticeship program, and updating CCRI's facilities will take up to 5 years.



Conclusion

The ideas presented in this Action Agenda are in various stages of planning and execution, with some of them gaining additional momentum even as the working group process was conducted. This summary is meant to record the findings from the Economic Intersections process, but not to serve as a final set of recommendations for the state's economic development plan. A holistic economic development plan is needed to guide immediate and longer-term priorities that can be championed by the state, business leaders, the academic community, the non-profit community and citizens. In the meantime, there is much that can be done to make progress, and there is no time to lose.

Appendix — All Recommendations

Recommendations provided during and as follow-up to Economic Intersection workshops
October, November, and December 2013

Arts/Culture/Creative Sector

- Engage artists and museums to tell the "Past, Present, Future" Story of RI Industry.
- Create a Statewide Cultural Trust/ United Arts Fund.
- Support Shared Business Resources.
- Facilitate loans process for starting a design business.
- Provide training on how to hire your first employee.
- Establish location/event for artisans--cottage industries, industrial arts, glass artists, etc. –to exhibit and sell their wares.
- Provide organizations across the state training, development, and support on how to market. Need small business support for non-profits – doesn't exist in this state.
- Provide opportunities to apply design services and thinking to other industries. Challenge around data, communication, but we can build it. That's something very meaningful – identify challenges and what's the technology to address it and why/what purpose does it have.
- Support Historic Tax Credit - when those projects happen architects, interior designers, engineers are all busy - need to show economic impact.
- Create a design curriculum for K-12 to foster a culture of problem solvers.
- Create an apprenticeship program for the creative sector - design, coding, etc.
- Develop more partnerships like Morin Fine Catering and Providence Library. DiscoverNewport is doing an excellent program that can help in this regard.
- Explore opportunities with way-finding infrastructure, such as signage about attractions at each highway exit. RIDOT has helped get signs up in the past for various attractions.
- Identify property owners willing to donate the sides of their buildings or small parcels of land proximate to Amtrak routes for art. Create a program whereby artists, voluntarily or with a stipend, create art near the tracks. Utilize appropriate signage identifying RI as an art and culture capital.
- Strengthen programs targeting the not-for-profit community that focus on marketing, operations, and board development.
- Focus on cooperation (rather than competition). Collaborate when it comes to marketing efforts.
- Position RI as "quirky" and emphasize "firsts" (Healthsource RI may provide some analogies here).

Biotechnology/Medical/Public Health Sector

- Establish RI as a place to demonstrate new technologies that make healthcare provisioning more efficient.
- Build a reputation and name for high quality, leading edge neuroscience from basic investigation to clinical care by developing a National Center of Excellence in neuroscience.
- Implement targeted incentive programs to attract life sciences companies to the I-195 location.
- Continue to pursue access to capital solutions for tech startups. Build off of InnovateRI's success with SBIR matching program.
- Develop creative approaches for pricing/partnerships between the municipality and institutions to help startups access research equipment at research institutions. Create a fund to help startups pay for using research equipment at universities and other facilities.
- Establish a vehicle through which all of these sector entities can be engaged and served and create infrastructure to support new innovative companies and lessening the barriers.
- Collaborate with the universities, particularly some of the entrepreneurial institutions. Think about developing relationships with institutions to attract medical students that will stay here as healthcare providers after graduation. Universities are interested in creating programs that serve needs; they are looking for ideas to start departments and training programs that might feed local companies. Example: J&W started a Bachelors of Science program to feed the Physicians' Assistant program.
- Collaborate with the universities/encourage universities to recruit entrepreneurial faculty.
- Explore nutraceuticals as a market opportunity.
- Address food deserts in RI to address obesity epidemic.
- Use the arts to teach sciences.
- Convene researchers and related stakeholders to talk about opportunities and address barriers to collaborating.
- Explore other models and strategies for providing health care that place a stronger emphasis on primary care and prevention strategies.
- Leverage Brown's public health databases and research centers to identify ways to more effectively deliver care.
- Host a translational neuroscience symposium to bring in top neuroscientists of the world. This event will catch the attention of major investors from around the world.
- Establish cross-sector Biotech, Medical, Public Health Oversight Team to support vision and coordinate/sustain state-wide "intersection" activities/dialogues. Activities include identity development/management, cluster identification/development, strategic partnership coordination/network, collaborative funding opportunities, communications/education.
- Establish a statewide inventory of sector and conduct competitive analyses to realize strengths, define gaps, and identify competitive edge. Consulting positioned or resourced via organizations' staff across the state.
- Create narrative/identity for sector to integrate into Rhode Island statewide story to improve profile of the sector and state on national/international scale. Work with other sectors to coordinate.
- Enable and incentivize "profile" system among regional peers to inventory, market, connect expertise across the state (across discipline, sector, organizations), improve recruitment, and strengthen community. Explore MedMates profiling system.

- Create a public/private seed fund. Cultivate/coordinate privately supported resources and increase STAC funds for advancing collaborative teams.
- Establish Purchasing Partnerships (B2B, Company to hospital, etc.).
- Develop collaborative and funded local clinical research among RI universities, hospitals, and private organizations.
- Strengthen the state's tech transfer capabilities.
- Establish boutique research modules on the edge of the universities – create “moons” of corporate research next to universities.
- Leverage technology to streamline and/or improve healthcare in RI.
- Create shared collaborative internship program.

Tourism/Hospitality/Visitor Sector

- Create Statewide Brand.
- Improve wayfinder signs to showcase RI tourism Assets.
- Work with property owners to create art next to Amtrak lines.
- Implement inexpensive, technology-enabled tourism branding and marketing. Leverage social media and other technology solutions to support and get the message out about Rhode Island tourism
- Develop a strategic plan to create an umbrella tourism brand and generate growth within the industry.
- Leverage conventions and other private sector events coming to the state to conduct match-making between external groups and Rhode Island businesses and business leaders.
- Encourage private companies to “lean in” and provide support for state tourism branding and marketing.
- Develop new/ enhanced financing mechanism to support tourism marketing.
- Work with other stakeholders within the state to address water quality issues that can impact tourism.
- Develop the waterfront for multiuse purposes and as tourist destinations.

Finance/Insurance/Real Estate/Corporate Sector

- Sponsor a VC Expo.
- Create the “Rhode to Success” online publication.
- Support minority businesses through access to capital, developing service providers, improving technical assistance, business development.
- Anchor institution supply chain development around Lifespan.
- Create State Innovation Fund.
- Create a platform to bring all Finance, Insurance, Real Estate industries together to raise awareness with General Assembly of their image as employer, demonstrate importance of major employers, like Citizens, explain what businesses need to succeed in RI.
- Improve zoning and permitting process - one uniform timeframe.

- Create stronger university industry partnerships - help design curriculum; Hasbro didn't even know the extent of RISK's industrial design program.
- Conduct an industry-wide skills gap survey.
- Form internship placement partnerships.
- Office of Regulatory Reform could propose regulations that individual municipalities would have to adopt. Business community could approach municipalities to express support.
- Streamline licensing/ remove barriers to entry for new businesses and existing businesses.
- Lobbying efforts need to be specific in showing economic benefit of the Historic Preservation Tax Credit program. Should lobby for an expanded program, but the program could be targeted at projects that have economic impact (ala the Federal New Market Tax Credit program) and the tax credit for any individual project could be capped.

Technology/Digital/Software Sector

- Foster a greater sense of community for diverse array of tech employees - no place to congregate and learn. A lot is going on but it's fractured. In the 90s there was the itech trade show but there's nothing today to unify people. Need to create events that attract both large and small firms.
- Increase number of affordable rentals - once a company is out of an accelerator, there is a gap in where they can go, makes it difficult to attract companies. Quonset and Hatch leased up in minutes - shows demand.
- Increase awareness of and preparation for jobs in the tech field.
- Improve University-Industry Partnerships - common way of interfacing. Example: University College of London/Cisco/TechCity.
- Develop collaborative, private sector initiative to attract similar talent needs
- Create better platforms for advertising existing resources for internships, e.g. SBIR/STAC.
- Brand/market opportunities for tech jobs outside of Rhode Island.
- Create events to network and market the tech sector.
- Increase public support for investment in start-up community.
- Commercialize naval technology.
- Graduate more Comp Sci majors - focus on K-12.
- Graduate more Comp Sci majors - focus on Gap Year.
- Graduate more Comp Sci majors - focus on College.
- Scale IT on Demand.

Manufacturing/Design/Makers Sector

- Create positive messaging around local manufacturing industry.
- Create a "Silicon Valley of Food" brand.

- Develop a regional approach and engage the region when approaching global trade opportunities.
- Invite global leaders from industries to come here and expose them to what's going on here. Help connect local businesses with the global innovation community.
- Create incubator kitchens at Johnson & Wales.
- Provide affordable commercial space for startups and makers to keep and attract small businesses.
- Claim the "Maker" brand for Rhode Island - celebrating the history and present of makers in the state.
- Create a manufacturing portal or website to facilitate networking and access to assistance and manufacturers.
- Shift focus from manufacturing to value creation. Develop a mechanism for identifying intellectual property with commercial potential and transferring it to the marketplace.
- Continue regulatory reform to improve the Rhode Island business environment.
- Engage state legislature/implement a "take a legislator to work" approach to inform legislators about private business needs.
- Improve/maintain infrastructure (roads, bridges, etc.).
- Incentivize capital investments.
- Implement short-term public policy and investment in training and education, particularly to address demographic trends.
- Hire Rhode Island School of Design students to be innovators in your organization, not just graphic designers.
- Develop continuing education programs at local schools for innovation management education.
- Establish a single point of entry for businesses to work with the universities.

Logistics/Connectivity Sector

- Create RI Commerce Club (working title).
- Leverage broadband infrastructure - businesses can choose from 4 competing broadband providers, which is a huge asset that hasn't been leveraged.
- Create stronger ties to NYC and Boston to improve how we move people and cargo - ex: Delaware/PA.
- Support more nonstop flights from Rhode Island.
- Create a SHIP RI app.
- Create a Shipping Association/ Bulk Contracts.
- Lobby for federal funding source for ports.
- Improve e-government - seamless interaction between various agencies/departments; need consistent e-government systems for each municipality.
- Increase dedicated sources of transportation funding from the state. Currently only 27% of transportation funding is from the state, versus 63% nationally.
- High-end facilities exist at Quonset that could increase productivity of marine trades manufacturers, but they are afraid that if they move they will lose their workforce. RIMTA doing skills gap analysis.

- Lack of waterfront land available for industrial/commercial development per URI/ Coastal Resources Center study - URI has tried to do outreach to coastal town for municipal planning with little success - need to provide market data to show demand for tourism-based uses versus industrial/commercial uses (e.g. boat building and repair, aquaculture storage).

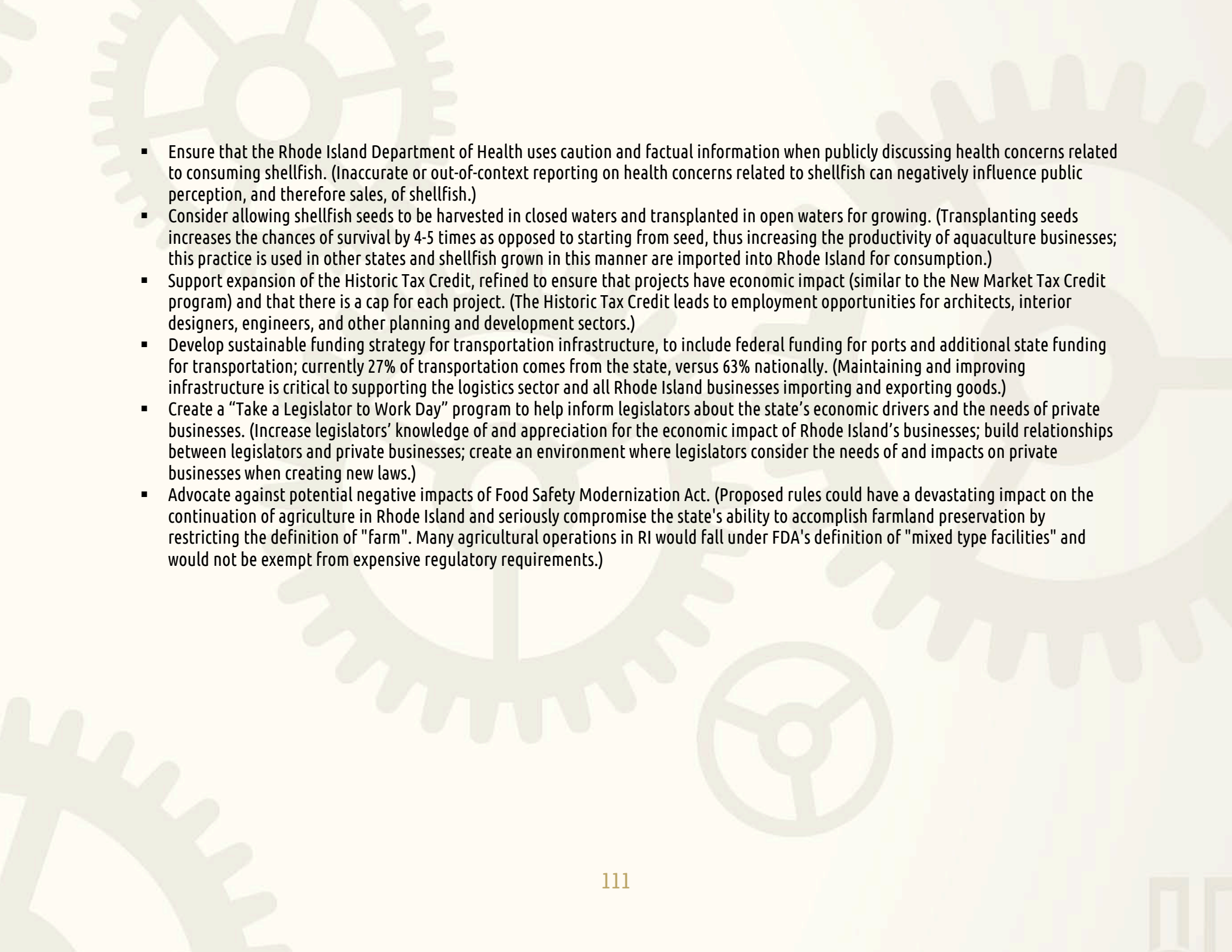
Natural Resources

- Develop infrastructure and programs to support small businesses, including underutilized Bay space owned by the state for use by entrepreneurs/small businesses and special financing programs for small businesses.
- Expand role of Farm Fresh RI to include gaining support of anchor institutions for steady market development.
- Explore use of facility in Jerusalem as a hatchery.
- Attract businesses that can study sea rise – i.e. develop models and system – and consult with them on how to solve issues.
- Partner with the Department of Defense (DOD) and Navy to be at the forefront for addressing climate change/resiliency/natural resources issues.
- Lobby against potential negative impacts of Food Safety Modernization Act.
- Create a Natural Resources Industry regulatory ombudsman.
- Create an advisory group/ombudsman/help desk for small businesses to help them interact with regulatory agencies.
- Connect with RI colleges and universities to get students involved in the community.
- Produce more of our own reliable, sustainable, clean & renewable energy supply.
- Use government (including military) & universities as testing grounds and exemplars.
- Advocate for removal of federal subsidies for traditional energy sources.
- Look to implement something similar to the Green Communities Act in Massachusetts.
- Enhance food production and processing capacity through access to affordable farmland (both urban and rural) and improve processing capacity (kitchen incubators like Hope & Main).
- Make government first actor in procurement and incentivize universities and businesses to follow.
- Advocate for removal of federal subsidy to large agriculture and leveling of playing field.
- Remove local laws that inhibit food efforts.
- Enhance walking, biking and transit infrastructure. Convert vehicles to electricity and natural gas. This will keep fuel dollars at home by reducing vehicle miles travelled and using domestic sources of fuel.
- Improve stormwater management so as to reduce the huge cost of infrastructure upgrades to protect water quality.
- Develop a cooperative innovation incubator with DOD, University of Rhode Island and Roger Williams to capitalize on the need for managing response to climate change.
- Build on huge eco-tourism and geo-tourism opportunities. Enhance RI's great strengths like sailing.
- Ensure quality of the built environment and its contribution to the public good to maintain quality of life advantage. Specific project examples include burying power lines in India Point Park and moving NGrid's electrical substation next to Dynamo House.

- Advocate for federal controls (e.g., Midwest power plant emissions) and develop progressive energy and transportation policies to improve air quality.
- Improve national brand/marketing efforts - teaching people in the Midwest how to cook recipes, engage celebrity chefs.
- Market aquaculture as part of agriculture efforts.
- Establish platforms for collaboration with local businesses - importing their shellfish, local trust is critical.
- Provide low-interest loans for new businesses.
- Create a clearinghouse for shellfish dealers who currently don't have the volume to get good prices.
- Improve shellfish storage infrastructure to help regulate supply.
- Improve aquaculture lease law to consider highest and best use.
- Work with Health department to mitigate messaging that is potentially harmful to the aquaculture industry.
- Allow aquaculture seeds to be harvested in closed water.
- Develop comprehensive program for encouraging new aquaculture producers: training, licenses, dock space, loans.
- Launch a public education campaign around pet waste and fertilizers and their impact on water quality.
- Improve financial support for water restoration efforts - currently volunteer. Restoration/predator removal to increase the survival of shellfish.
- Eliminate sewer upgrade exemptions; support spending for stormwater infrastructure improvements.
- Advocate for the establishment of fast track approval for the reuse of existing buildings that meet statewide public safety and building standard protocols.
- Create clear guidance on regulatory process for starting a new food-based business, e.g. which agency regulates what products.
- Support small- medium farms in accessing wholesale markets.
- Create enhanced access to capital for early stage technology and natural resource ventures.
- Form stronger partnerships between Quonset and marine-based industry. Quonset can help import/export components of boat building, has cold storage facilities for seafood.
- Add a donation option to tax forms to support local agriculture.

Regulatory Reform

- Investigate requiring all municipalities to tie into sewer systems, as opposed to allowing for individual septic systems. (Efforts to improve water quality, an important variable in supporting the aquaculture and other water-based industries, are undermined by allowing the use of septic systems.)
- Review marine lease law regulations to consider using “highest and best use” to guide permitting. (Rhode Island’s common resources could be allocated in a manner that provides the highest economic benefit to the state, while also conserving those resources for future generations.)

- 
- Ensure that the Rhode Island Department of Health uses caution and factual information when publicly discussing health concerns related to consuming shellfish. (Inaccurate or out-of-context reporting on health concerns related to shellfish can negatively influence public perception, and therefore sales, of shellfish.)
 - Consider allowing shellfish seeds to be harvested in closed waters and transplanted in open waters for growing. (Transplanting seeds increases the chances of survival by 4-5 times as opposed to starting from seed, thus increasing the productivity of aquaculture businesses; this practice is used in other states and shellfish grown in this manner are imported into Rhode Island for consumption.)
 - Support expansion of the Historic Tax Credit, refined to ensure that projects have economic impact (similar to the New Market Tax Credit program) and that there is a cap for each project. (The Historic Tax Credit leads to employment opportunities for architects, interior designers, engineers, and other planning and development sectors.)
 - Develop sustainable funding strategy for transportation infrastructure, to include federal funding for ports and additional state funding for transportation; currently 27% of transportation comes from the state, versus 63% nationally. (Maintaining and improving infrastructure is critical to supporting the logistics sector and all Rhode Island businesses importing and exporting goods.)
 - Create a “Take a Legislator to Work Day” program to help inform legislators about the state’s economic drivers and the needs of private businesses. (Increase legislators’ knowledge of and appreciation for the economic impact of Rhode Island’s businesses; build relationships between legislators and private businesses; create an environment where legislators consider the needs of and impacts on private businesses when creating new laws.)
 - Advocate against potential negative impacts of Food Safety Modernization Act. (Proposed rules could have a devastating impact on the continuation of agriculture in Rhode Island and seriously compromise the state's ability to accomplish farmland preservation by restricting the definition of "farm". Many agricultural operations in RI would fall under FDA's definition of "mixed type facilities" and would not be exempt from expensive regulatory requirements.)

Acknowledgements

Commerce RI and the Rhode Island Foundation would like to thank the following people for contributing their time, energy, and ideas to this process:

Nick Adams, Care Thread
Gail Ahlers, Ahlers Designs
Michael Allio, Allio Associates, LLC
Ted Almon, Claflin Company, Inc.
Julian Alssid, College for America
Alden Anderson, C.B. Richard Ellis
Peter Andruszkiewicz, Blue Cross Blue Shield of Rhode Island
Susan Arnold, RI Association of Realtors
Leif Askeland, Hasbro, Inc.
Richard Asinof, ConvergenceRI
Tomas Avila, Milenio Associates
Ken Ayars, RI Dept. of Environmental Management
Daniel Bacher, SpeakYourMind Foundation
Dana Barlow, The Moore Company
Daniel Baudouin, The Providence Foundation
Theresa Baus, NUWC
Robert Billington, Blackstone Valley Tourism Bureau
Gavin Black, Moran Shipping Company
Todd Blount, Blount Fine Foods
George Bottomley, Johnson & Wales University Center for Physician Assistant Studies
Kipp Bradford, KippKitts
Terry Bradley, University of Rhode Island
Shannon Brawley, Rhode Island Nursery and Landscape Association
Barrett Bready, Nabsys
Erik Bright, The Steelyard
Jan Brodie, I-95 Commission
David Brown, Whittet-Higgins
Bob Burke, Pot au Feu - Independence Trail
Russell Carey, Brown University
Lisa Carnevale, Myranda Group
Nancy Carriuolo, Rhode Island College
Paul Carroll, City of Newport
Lauren Carson, Rhode Island Clean Water Action
Amber Caulkins, College & University Research Collaborative
Daniel Cavicchi, Rhode Island School of Design
David Chenevert, Swissline Precision

Alan Chille, Providence Performing Arts Center
Shayna Cohen, Food and Agriculture Consultant
Peter Collins, A2B Tracking Solutions, Inc.
Bruce Corliss, URI Graduate School of Oceanography
Gail Costa, Care New England
Jean Cotta, Portsmouth Nursery
Chris Crawford, The Corporate Marketplace, Inc.
Umberto Crenca, AS220
Donna Cupelo, Verizon Communications
Meredith Curren, Edgewood Holdings
Robert Cusack, Whale Rock Point Partners, LLC
Al Dahlberg, Brown University
John Davenport, Brown Institute for Brain Science
Angelo DePeri, Renaissance Providence Hotel
David DePetrillo, Rhode Island Commodores
Richard DeRienzo, Lefkowitz, Garfinkel, Champi & DeRienzo, P.C.
Elizabeth Deschenes, Hasbro, Inc.
Joseph Devine, Bridge Technical Talent
Steve Devine, RI Department of Transportation
Margaret DeVos, South Side Community Land Trust
Judith Diaz, Lifespan
Paul Dion, RI Department of Revenue
John Donoghue, Brown University
Maeve Donohue, Nami Studios
Peter Dorsey, Business Development Company
Jonathan Duffy, Duffy & Shanley Inc.
Davide Dukceovich, Daniele Foods
Tom Dziki, United Natural Foods Inc.
Craig Eaton, Twin River Management Group
Jan Eckhart, Sweetberry Farm
Dan Egan, Association of Independent Colleges and Universities of Rhode Island
Timothy Ehrlich, Ocean State Angels
Barnaby Evans, WaterFire Providence
Jonathan Fain, Teknor Apex
Sergio Ferreira, Providence Startup Weekend
Jeff Flath, eNow

Katharine Flynn, URI Business Engagement Center
Ray Fogarty, Chafee Center for International Business at Bryant University
Susan Folco, Warwick Office of Tourism, Culture & Development
Elizabeth Francis, Rhode Island Council for the Humanities
Kelly Fredericks, Rhode Island Airport Corporation
Nancy Gagliano, CVS
Charles Garcia, Odyssey Consulting, LLC
Myrna George, South County Tourism Council
Scott Gibbs, Economic Development Foundation of Rhode Island
Jennifer Giroux, Rhode Island College
Gary Glassman, Providence Pictures
David Goldsmith, Aspiera
Patti Goldstein, Rhode Island Airport Corporation
Jeremy Goodman, Roger Williams Zoo
Morgan Grefe, Rhode Island Historical Society
Geoffrey Grove, Pilgrim Screw Corporation
Topher Hamblett, Save the Bay
Ned Handy, Washington Trust Company
Seth Handy, Handy Law, LLC
John Harker, microPEP
William Hatfield, Bank of America RI
Philip Hawthorne, Blue Cross Blue Shield of RI
Timothy Hebert, Atrion Networking Corporation
Jeff Hirsh, The Lobster Pot
Renee Hobbs, URI Harrington School of Communication & Media
Richard Horan, Slater Technology Fund
John Isberg, National Grid
Junior Jabbie, Banneker Industries
Karen Jedson, Warwick Office of Tourism, Culture & Development
Wendy Jencks, Blackstone Valley Tourism Bureau
Sharyl Jump, Naval War College Museum
Colin Kane, Peregrine Group/ I-95 Redevelopment Commission
Martin Keen, Focal Upright Furniture
Jason Kelly, Moran Shipping Company
Suzanne Kelly, Alex and Ani
Steven King, Quonset Development Corporation
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